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Phe	Asp	Lys	Glu	Thr	Ser	Leu	Asn	Lys	Ala	Arg	Glu	His	Ser	Leu	Leu	
			580					585				590				
Arg	Ser	Asp	Arg	Pro	Ala	Tyr	Val	Thr	Ile	Leu	Ser	Leu	Val	Arg	Asp	
		595					600					605				
Ala	Ala	Ala	Arg	Leu	Pro	Asn	Gly	Glu	Gly	Thr	Arg	Ala	Glu	Ile	Cys	
	610					615					620					
Glu	Leu	Leu	Lys	Asp	Ser	Gln	Phe	Leu	Ala	Pro	Asp	Val	Thr	Ser	Thr	
625					630					635					640	
Gln	Val	Asn	Thr	Val	Val	Ser	Gly	Ala	Leu	Asp	Arg	Leu	His	Tyr	Glu	
				645					650					655		
Lys	Asp	Pro	Cys	Val	Lys	Tyr	Asp	Ile	Gly	Arg	Lys	Leu	Trp	Ile	Tyr	
			660					665				670				
Leu	His	Arg	Asp	Arg	Ser	Glu	Glu	Glu	Phe	Glu	Arg	Ile	His	Gln	Ala	
		675					680					685				
Gln	Ala	Ala	Ala	Ala	Lys	Ala	Arg	Lys	Ala	Leu	Gln	Gln	Lys	Pro	Lys	
	690					695					700					
Pro	Pro	Ser	Lys	Val	Lys	Ser	Ser	Ser	Lys	Glu	Ser	Ser	Ile	Lys	Val	
705					710					715					720	
Leu	Ser	Ser	Gly	Pro	Ser	Glu	Gln	Ser	Gln	Met	Ser	Leu	Ser	Asp	Ser	
			725						730					735		
Ser	Met	Pro	Pro	Thr	Pro	Val	Thr	Pro	Val	Thr	Pro	Thr	Thr	Pro	Ala	
			740					745				750				
Leu	Pro	Ala	Ile	Pro	Ile	Ser	Pro	Pro	Pro	Val	Ser	Ala	Val	Asn	Lys	
		755					760					765				
Ser	Gly	Pro	Ser	Thr	Val	Ser	Glu	Pro	Ala	Lys	Ser	Ser	Ser	Gly	Val	
	770					775					780					
Leu	Leu	Val	Ser	Ser	Pro	Thr	Met	Pro	His	Leu	Gly	Thr	Met	Leu	Ser	
785					790					795					800	
Pro	Ala	Ser	Ser	Gln	Thr	Ala	Pro	Ser	Ser	Gln	Ala	Ala	Ala	Arg	Val	
				805						810				815		
Val	Ser	His	Ser	Gly	Ser	Ala	Gly	Leu	Ser	Gln	Val	Arg	Val	Val	Ala	
			820					825				830				
Gln	Pro	Ser	Leu	Pro	Ala	Val	Pro	Gln	Gln	Ser	Gly	Gly	Pro	Ala	Gln	
		835					840					845				
Thr	Leu	Pro	Gln	Met	Pro	Ala	Gly	Pro	Gln	Ile	Arg	Val	Pro	Ala	Thr	
	850					855					860					
Ala	Thr	Gln	Thr	Lys	Val	Val	Pro	Gln	Thr	Val	Met	Ala	Thr	Val	Pro	
865					870					875					880</	



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945          950          955          960
Ile Pro Leu Thr Ala Thr Asn Phe Arg Ile Gln Gly Lys Asp Val Leu
          965          970          975
Arg Leu Pro Pro Ser Ser Ile Thr Thr Asp Ala Lys Gly Gln Thr Val
          980          985          990
Leu Arg Ile Thr Pro Asp Met Met Ala Thr Leu Ala Lys Ser Gln Val
          995          1000          1005
Thr Thr Val Lys Leu Thr Gln Asp Leu Phe Gly Thr Gly Gly Asn Thr
          1010          1015          1020
Thr Gly Lys Gly Ile Ser Ala Thr Leu His Val Thr Ser Asn Pro Val
1025          1030          1035          1040
His Ala Ala Asp Ser Pro Ala Lys Ala Ser Ser Ala Ser Ala Pro Ser
          1045          1050          1055
Ser Thr Pro Thr Gly Thr Thr Val Val Lys Val Thr Pro Asp Leu Lys
          1060          1065          1070
Pro Thr Glu Ala Ser Ser Ser Ala Phe Arg Leu Met Pro Ala Leu Gly
          1075          1080          1085
Val Ser Val Ala Asp Gln Lys Gly Lys Ser Thr Val Ala Ser Ser Glu
          1090          1095          1100
Ala Lys Pro Ala Ala Thr Ile Arg Ile Val Gln Gly Leu Gly Val Met
1105          1110          1115          1120
Pro Pro Lys Ala Gly Gln Thr Ile Thr Val Ala Thr His Ala Lys Gln
          1125          1130          1135
Gly Ala Ser Val Ala Ser Gly Ser Gly Thr Val His Thr Ser Ala Val
          1140          1145          1150
Ser Leu Pro Ser Met Asn Ala Ala Val Ser Lys Thr Val Ala Val Ala
          1155          1160          1165
Ser Gly Ala Ala Ser Thr Pro Ile Ser Ile Ser Thr Gly Ala Pro Thr
          1170          1175          1180
Val Arg Gln Val Pro Val Ser Thr Thr Val Val Ser Thr Ser Gln Ala
1185          1190          1195          1200
Gly Lys Leu Pro Thr Arg Ile Thr Val Pro Leu Ser Val Ile Ser Gln
          1205          1210          1215
Pro Met Lys Gly Lys Ser Val Val Thr Ala Pro Ile Ile Lys Gly Asn
          1220          1225          1230
Leu Gly Ala Asn Leu Ser Gly Leu Gly Arg Asn Ile Ile Leu Thr Thr
          1235          1240          1245
Met Pro Ala Gly Thr Lys Leu Ile Ala Gly Asn Lys Pro Val Ser Phe
          1250          1255          1260
Leu Thr Ala Gln Gln Leu Gln Gln Leu Gln Gln Gly Gln Ala Thr
1265          1270          1275          1280
Gln Val Arg Ile Gln Thr Val Pro Ala Ser Xaa Leu Gln Gln Gly Thr
          1285          1290          1295
Ala Ser Gly Ser Ser Lys Ala Val Ser Thr Val Val Val Thr Thr Ala
          1300          1305          1310
Pro Ser Pro Lys Gln Ala Pro Glu Gln Gln
          1315          1320

```

&lt;210&gt; 4829

&lt;211&gt; 1605

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4829

cccgagagac gaggacgacg tgaaggcgga gtggcgcccc gcgaggtagc gccaggcgag  
60  
ctggagacca tggccaaaat ggagggtgaaa acctcacttc tggacaatat gattggagtt  
120  
ggggatatgg ttctttttaga acctctcaat gaggagacct tcatcaacaa cctcaagaag  
180  
cgctttgacc acagtgaat atacacttac attggaagtg tggttatata tgttaacca  
240  
tateggtctt taccatttta ttcaccagag aaagtggag aatacaggaa cagaaatttt  
300  
tatgaactga gccctcacat ctttgccctt tcggatgaag catacagatc cctacgagat  
360  
caagataagg accaatgtat tctcattact ggggaaagtg gagcaggaaa aacagaggcc  
420  
agtaagcttg tcatgtccta tgtggcagct gtttgtggaa aaggagcaga agttaatcaa  
480  
gttaaagaac agctttttaca gtccaacccg gtcctggaag cttttggaaa tgccaaaact  
540  
gtaaggaatg acaactcctc tagatttggc aaatatatgg atattgaatt tgactttaaa  
600  
ggcgatccac taggaggagt aataagtaac tatcttttag agaaatctcg ggttgttaaa  
660  
cagccaagag gtgaaagaaa cttccatgtg ttctatcagc tgctctctgg tgcccttgaa  
720  
gagctcctca ataaacttaa gcttgagagg gatttcagca ggtataacta cctgagtctg  
780  
gattcggcca aagtgaatgg agtggatgat gcagcaaatt ttagaaccgt gcggaatgcc  
840  
atgcagattg tgggctttat ggatcatgaa gctgagtctg tcttggcggg ggtggcagca  
900  
gtgttgaaac tggggaacat tgagttcaag cccgaatctc gagtgaatgg tctagatgaa  
960  
agcaaaatca aagataaaaa tgagttaaaa gaaatttgtg aattgaccgg cattgatcaa  
1020  
tcagttctag aacgagcatt cagtttccga acagttgagg ccaaacagga gaaagtttca  
1080  
actacactga atgtggctca ggcttattat gcccgatg ctctggctaa aaacctctac  
1140  
agcaggttgt tttcatgggt ggtaaatcga atcaatgaaa gcattaaggc acaacaaaa  
1200  
gtgagaaaga aggtcatggg tgttctggac atttatggct ttgagatttt cgaggacaac  
1260  
agctttgagc agttcattat taattattgt aacgaaaagc tgcaacaaat cttcattgaa  
1320  
cttactctta aagaagagca ggaggagtat atacgggagg atatagaatg gactcacatt  
1380  
gactacttca ataatgctat catttgtgac ctaatagaaa ataacacaaa tggaatcctg  
1440  
gccatgttgg atgaagagt cctcagacct ggcacagtca ctgatgagac cttcttagaa  
1500  
aagctgaacc aagtatgtgc caccaccag ctttttgaag gcaggatgag caagtgtctt  
1560  
cggttcctca atgacacgtc tctgcctcac agctgcttca ggatc  
1605

<210> 4830  
 <211> 512  
 <212> PRT  
 <213> Homo sapiens

<400> 4830

```

Met Ala Lys Met Glu Val Lys Thr Ser Leu Leu Asp Asn Met Ile Gly
 1           5           10           15
Val Gly Asp Met Val Leu Leu Glu Pro Leu Asn Glu Glu Thr Phe Ile
      20           25           30
Asn Asn Leu Lys Lys Arg Phe Asp His Ser Glu Ile Tyr Thr Tyr Ile
      35           40           45
Gly Ser Val Val Ile Ser Val Asn Pro Tyr Arg Ser Leu Pro Ile Tyr
      50           55           60
Ser Pro Glu Lys Val Glu Glu Tyr Arg Asn Arg Asn Phe Tyr Glu Leu
65           70           75           80
Ser Pro His Ile Phe Ala Leu Ser Asp Glu Ala Tyr Arg Ser Leu Arg
      85           90           95
Asp Gln Asp Lys Asp Gln Cys Ile Leu Ile Thr Gly Glu Ser Gly Ala
      100          105          110
Gly Lys Thr Glu Ala Ser Lys Leu Val Met Ser Tyr Val Ala Ala Val
      115          120          125
Cys Gly Lys Gly Ala Glu Val Asn Gln Val Lys Glu Gln Leu Leu Gln
      130          135          140
Ser Asn Pro Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn
145          150          155          160
Asp Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Glu Phe Asp Phe
      165          170          175
Lys Gly Asp Pro Leu Gly Gly Val Ile Ser Asn Tyr Leu Leu Glu Lys
      180          185          190
Ser Arg Val Val Lys Gln Pro Arg Gly Glu Arg Asn Phe His Val Phe
      195          200          205
Tyr Gln Leu Leu Ser Gly Ala Ser Glu Glu Leu Leu Asn Lys Leu Lys
      210          215          220
Leu Glu Arg Asp Phe Ser Arg Tyr Asn Tyr Leu Ser Leu Asp Ser Ala
225          230          235          240
Lys Val Asn Gly Val Asp Asp Ala Ala Asn Phe Arg Thr Val Arg Asn
      245          250          255
Ala Met Gln Ile Val Gly Phe Met Asp His Glu Ala Glu Ser Val Leu
      260          265          270
Ala Val Val Ala Ala Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro
      275          280          285
Glu Ser Arg Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn
      290          295          300
Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu
305          310          315          320
Glu Arg Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val
      325          330          335
Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu
      340          345          350
Ala Lys Asn Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile
      355          360          365
Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly

```

```

      370              375              380
Val Leu Asp Ile Tyr Gly Phe Glu Ile Phe Glu Asp Asn Ser Phe Glu
385              390              395              400
Gln Phe Ile Ile Asn Tyr Cys Asn Glu Lys Leu Gln Gln Ile Phe Ile
      405              410              415
Glu Leu Thr Leu Lys Glu Glu Gln Glu Glu Tyr Ile Arg Glu Asp Ile
      420              425              430
Glu Trp Thr His Ile Asp Tyr Phe Asn Asn Ala Ile Ile Cys Asp Leu
      435              440              445
Ile Glu Asn Asn Thr Asn Gly Ile Leu Ala Met Leu Asp Glu Glu Cys
      450              455              460
Leu Arg Pro Gly Thr Val Thr Asp Glu Thr Phe Leu Glu Lys Leu Asn
465              470              475              480
Gln Val Cys Ala Thr His Gln His Phe Glu Ser Arg Met Ser Lys Cys
      485              490              495
Ser Arg Phe Leu Asn Asp Thr Ser Leu Pro His Ser Cys Phe Arg Ile
      500              505              510

```

&lt;210&gt; 4831

&lt;211&gt; 578

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4831

```

cggacggtgg ccctcaaagg ccagtcacc aatgccgcca tctgctggc gcccgtcagc
60
atgctgagct cagacttcag gccagcctg ccgctgcccc acttcaacaa gcacctgctg
120
ggcgccgagc acggggacga gccgcgccac gggggcctca ctctgcgcct gggcctccac
180
cagcagagcg tgctcggcgg ccaggaccag ctgcgcgtcc gtgtgacgga gctggaggac
240
gaggtgcgca acctgcgcaa gatcaatcgg gacctgttcg acttctccac gcgcttcac
300
acgcggcccg ccaagtgagg cccggagacc ccggcccagag gcgcccaggc ctgagcccca
360
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420
tcagttctgt gtcgtgttcg ggtttttcct ctgtgactgg gccgtcttgg tgtctcgtgg
480
cacgcgtcac agtggtgcta gtctgttttt aacaaaagag gatgaaaagc caaaaaaaaa
540
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
578

```

&lt;210&gt; 4832

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4832

```

Arg Thr Val Ala Leu Lys Gly Pro Val Thr Asn Ala Ala Ile Leu Leu
1              5              10              15
Ala Pro Val Ser Met Leu Ser Ser Asp Phe Arg Pro Ser Leu Pro Leu

```

	20		25		30										
Pro	His	Phe	Asn	Lys	His	Leu	Leu	Gly	Ala	Glu	His	Gly	Asp	Glu	Pro
	35		40		45										
Arg	His	Gly	Gly	Leu	Thr	Leu	Arg	Leu	Gly	Leu	His	Gln	Gln	Ser	Val
	50		55		60										
Leu	Gly	Gly	Gln	Asp	Gln	Leu	Arg	Val	Arg	Val	Thr	Glu	Leu	Glu	Asp
65			70		75				80						
Glu	Val	Arg	Asn	Leu	Arg	Lys	Ile	Asn	Arg	Asp	Leu	Phe	Asp	Phe	Ser
	85		90		95										
Thr	Arg	Phe	Ile	Thr	Arg	Pro	Ala	Lys							
	100		105												

<210> 4833  
 <211> 872  
 <212> DNA  
 <213> Homo sapiens

<400> 4833  
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 60  
 ctttgagaag gaactgagta ggcagtgaga agagtcgagt gaagcctggc ccgtgagtgc  
 120  
 ctcaacaact gagatgaacg tcgactcgct tgcaggcaag ttgtcactca gcagcgatct  
 180  
 gaactatatt ctgggttcca gaaaaggcag aggttcttac cgaaagcagg ggaggaagcc  
 240  
 gcagcccaag gaggtcgta cttgccggga aggtggctcg ggccaggctg cactcaaaac  
 300  
 ccgtgctctg tccacactgc tacggggcca gagccaagga agcttccact tcttccccca  
 360  
 gacagcccca acagcggcta cccaaggag ccagcagcct tgtgtcctgg gatccccagc  
 420  
 ccctgcagaa tgaccaccca ggatctgagc atcacagcca aactcatcaa tggaggtgta  
 480  
 gcagggtcg tgggggtgac ctgcgtgttc cccatcgact tggccaagac tcgcctgcag  
 540  
 aaccagcatg ggaaagccat gtacaaagga atgatcgact gcctgatgaa gacggctcgg  
 600  
 gcggagggtc tcttcggcat gtaccgaggg gctgcagtga acctcactct ggtcactcca  
 660  
 gagaaggcca tcaagctggc ggccaacgac tttttccggc ggctgctcat ggaagatggg  
 720  
 atgcagcgga acctgaagat ggagatgctt gccgggtgtg gggctgggat gtgccaggtc  
 780  
 gtggtgacct gtcccatgga aatgctcaag attcagctgc aggcattgtg gacgcctggc  
 840  
 cgtccatcat cagggtcgg cctcagcacc ct  
 872

<210> 4834  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 4834

```

Met Thr His Gln Asp Leu Ser Ile Thr Ala Lys Leu Ile Asn Gly Gly
 1           5           10           15
Val Ala Gly Leu Val Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala
 20           25           30
Lys Thr Arg Leu Gln Asn Gln His Gly Lys Ala Met Tyr Lys Gly Met
 35           40           45
Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
 50           55           60
Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
 65           70           75           80
Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
 85           90           95
Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
 100          105          110
Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
 115          120          125
Gln Leu Gln Ala Cys Trp Thr Pro Gly Arg Pro Ser Ser Gly Leu Gly
 130          135          140
Leu Ser Thr
145

```

&lt;210&gt; 4835

&lt;211&gt; 1846

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4835

```

nctcatttcc gaagtgcctt gacagcccac cctgtgctgt accctgtgca catgtaccag
60
ctgcacaaag ctttcgcccc agctgaactg gaacgcacgt accaggagat ccaggagtta
120
cagtggggaga tccagaatac cagccatctg gccgttgatg gggaccgggc agctgcttgg
180
cccgtgggta ttccagcacc atcccgcccc gctcccgtct ttgagggtgct gcgctgggac
240
tacttcacgg agcagcacgc tttctcctgc gccgatggct caccocgtct cccactgcgt
300
ggggctgacc gggctgatgt ggccgatgtt ctggggacag ctctagagga gctgaaccgc
360
cgctaccacc cggccttgct gctccagaag cagcagctgg tgaatggcta ccgacgcttt
420
gatccggccc ggggtatgga atacacgctg gacttgccgc tggaggcact gacccccag
480
ggaggccgcc ggcccctcac tcgccgagtg cagctgctcc ggccgctgag ccgctgggag
540
atcttgcttg tgccctatgt cactgaggcc tcacgtctca ctgtgctgct gctctagct
600
gcggctgagc gtgacctggc ccctggcttc ttggaggcct ttgccactgc agcactggag
660
cctgggtgatg ctgcggcagc cctgaccctg ctgctactgt atgagccgcg ccaggccag
720
cgctggggcc atgcagatgt cttcgcacct gtcaaggccc acgtggcaga gctggagcgg
780

```

cgtttcccccgt gtgcccgggt gccatggctc agtgtgcaga cagccgcacc ctcaccactg  
 840  
 cgccatcatgg atctactctc caagaagcac ccgctggaca cactgttcct gctggccggg  
 900  
 ccagacacgg tgctcacgcc tgacttctg aaccgctgcc gcatgcatgc catctccggc  
 960  
 tggcaggcct tctttcccat gcatttccaa gccttccacc cagctgtggc cccaccacaa  
 1020  
 gggcctgggc cccagagct ggggccgtga cactggccgc tttgatcgcc aggcagccag  
 1080  
 cgaggcctgc ttctacaact ccgactacgt ggcagcccgt gggcgccctgg gcgcagctca  
 1140  
 gaacaagaag aggagctgct ggagagcctg gatgtgtacg agctgttcct ccacttctcc  
 1200  
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 1260  
 tgcagcgcga ggctcagtga ggacctgtac caccgctgcc tccagagcgt gcttgagggc  
 1320  
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 1380  
 tgaccccacc ctgtcccgt gggcccgtgg cattggccac accccacccc acttctcccc  
 1440  
 caaaaccaga gccacctgcc agcctcgctg ggcagggtg gccgtagcca gacccaagc  
 1500  
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 1560  
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 1620  
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 1680  
 gcctctgggc cctgggggct gggctgtaga agagtgttg gggaaggagg gagctgagga  
 1740  
 gggggcatct cccaacttct cccttttggg ccctgccgaa gctccctgcc ttttaataaac  
 1800  
 tggccaagtg tggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa  
 1846

&lt;210&gt; 4836

&lt;211&gt; 349

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4836

Xaa	His	Phe	Arg	Ser	Ala	Leu	Thr	Ala	His	Pro	Val	Arg	Asp	Pro	Val
1				5					10					15	
His	Met	Tyr	Gln	Leu	His	Lys	Ala	Phe	Ala	Arg	Ala	Glu	Leu	Glu	Arg
			20					25				30			
Thr	Tyr	Gln	Glu	Ile	Gln	Glu	Leu	Gln	Trp	Glu	Ile	Gln	Asn	Thr	Ser
		35				40					45				
His	Leu	Ala	Val	Asp	Gly	Asp	Arg	Ala	Ala	Ala	Trp	Pro	Val	Gly	Ile
	50				55					60					
Pro	Ala	Pro	Ser	Arg	Pro	Ala	Ser	Arg	Phe	Glu	Val	Leu	Arg	Trp	Asp
65				70					75			80			
Tyr	Phe	Thr	Glu	Gln	His	Ala	Phe	Ser	Cys	Ala	Asp	Gly	Ser	Pro	Arg

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<210> 4837
<211> 906
<212> DNA
<213> Homo sapiens
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<400> 4837
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gaggaagaag acagtgacga aggggaaaga acaattgaaa ctgcaaaagg gattaatgga
120
actgtaaatt atgatagtgt caattctgac aactctaagc caaagatatt taaaagtcaa
180
atagagaaca taaatttgac caatggcagc aatgggagga acacagagtc cccagctgcc
240
attcaccctt gtggaaatcc tacagtgatt gaggacgctt tggacaagat taaaagcaat
300
gaccctgaca ccacagaagt caatttgaac aacattgaga acatcacaac acagaccctt
360
accgcgtttg ctgaagccct caaggacaac actgtggtga agacgttcag tctggccaac
420
```



acgcatgccg acgacagtgc agccatggcc attgcagaga tgctcaaagt caatgagcac  
 480  
 atcaccaacg taaacgtcga gtccaacttc ataacgggaa aggggatcct ggccatcatg  
 540  
 agagctctcc agcacaacac ggtgctcacg gagctgcgtt tccataacca gaggcacatc  
 600  
 atgggagcgc aggtggaaat ggagattgtc aagctgctga aggagaacac gacgctgctg  
 660  
 aggctgggat accattttga actcccagga ccaagaatga gcatgacgag cattttgaca  
 720  
 agaaatatgg ataaacagag gcaaaaacgt ttgcaggagc aaaaacagca ggagggatac  
 780  
 gatggaggac ccaatcttag gaccaaagtc tggcaaagag gaacacctag cccttccct  
 840  
 tatgtatctc ccaggcactc accgtgggtca tccccaaaac tcccctacgg agagacgaca  
 900  
 acgcgt  
 906

<210> 4838

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4838

Xaa	Gly	Glu	Glu	Glu	Glu	Val	Val	Ala	Ala	Phe	Gly	Lys	Lys	Glu	Ser
1				5					10					15	
Gln	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Ser	Asp	Glu	Gly	Glu	Arg	Thr	Ile
			20					25					30		
Glu	Thr	Ala	Lys	Gly	Ile	Asn	Gly	Thr	Val	Asn	Tyr	Asp	Ser	Val	Asn
		35					40					45			
Ser	Asp	Asn	Ser	Lys	Pro	Lys	Ile	Phe	Lys	Ser	Gln	Ile	Glu	Asn	Ile
	50					55					60				
Asn	Leu	Thr	Asn	Gly	Ser	Asn	Gly	Arg	Asn	Thr	Glu	Ser	Pro	Ala	Ala
65					70				75					80	
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Tyr	Trp	Arg	Ile	Leu	Asn	His	Val	Glu	Lys	Asn	Thr	His	Lys	Val	Glu
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Glu	Glu	Gly	Glu	Ile	Val	Met	Val	His	Glu	His	Arg	Glu	Leu	Asp	Arg
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Ser	Gly	Thr	Arg	Lys	Gly	His	Ile	Val	Ile	Lys	Ala	Thr	Pro	Glu	Arg
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Leu	Ile	Met	His	Leu	Ile	Glu	Glu	His	Ser	Ile	Val	Asp	Pro	Thr	Tyr
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Ile	Glu	Asp	Phe	Leu	Leu	Thr	Tyr	Arg	Thr	Phe	Leu	Glu	Ser	Pro	Leu
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Gln Asn Phe Glu Asn Ile Thr Phe Met Lys Ala Val Glu Ile Leu Arg		655
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Gly Gly Leu Ser Gln Ser Gln Asp Asp Ser Ile Val Gly Thr Arg His		765
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Val Val Phe His Ala Val His Glu Phe Gly Leu Thr Gly Ala Ser Asp		845
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Gln Arg Arg Leu Pro Asp Gln Phe Ser Lys Leu Ala Asp Arg Ile Gln		880
	885	890
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Leu Phe Lys Leu Asn Ser Lys Thr Gly Asn Thr His Leu Lys Arg Phe		960
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Glu Asp Ile Val Asn Gln Glu Thr Phe Trp Val Ala Ser Glu Ile Leu		975
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Thr Glu Ala Asn Gln Leu Lys Arg Met Lys Ile Ile Lys His Phe Ile		990
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Lys Ile Ala Leu His Cys Arg Glu Cys Lys Asn Phe Asn Ser Met Phe		1005
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Ala Ile Ile Ser Gly Leu Asn Leu Ala Ser Val Ala Arg Leu Arg Gly		1025
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Thr Trp Glu Lys Leu Pro Ser Lys Tyr Glu Lys His Leu Gln Asp Leu		1040

4029

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 Val Thr Ser Ser Thr Glu Lys Gly Leu Ile Val Tyr Cys Val Thr Ser  
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 Pro Lys Lys Asp Asp Arg Tyr Arg Glu Pro Pro Pro Thr Pro Pro Gly  
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 Leu Gln Pro Phe His Pro Lys Leu Gly Asp Val Thr Asp Ala Asp Ser  
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&lt;210&gt; 4846

&lt;211&gt; 626

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4846

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			20					25					30		
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Phe	Glu	His	Asn	Gly	Glu	Arg	Arg	Ile	Ile	Ala	Phe	Ser	Arg	Pro	Val
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Lys	Tyr	Glu	Asp	Val	Glu	His	Lys	Val	Thr	Thr	Val	Phe	Gly	Gln	Pro
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Leu	Asp	Leu	His	Tyr	Met	Asn	Asn	Glu	Leu	Ser	Ile	Leu	Leu	Lys	Asn
			85					90						95	
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4033

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Phe Lys Ile Ala Thr Gln Pro Thr Asn Pro Gln Leu Pro Ser His Ile				
	580		585	590
Ser Glu His Gly Arg Asp Phe Leu Arg Arg Ile Phe Val Glu Ala Arg				
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&lt;210&gt; 4847

&lt;211&gt; 2804

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4847

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<212> PRT

<213> Homo sapiens

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			20					25					30		
Ile	Leu	Gln	Asp	Met	Tyr	Lys	Thr	Lys	Lys	Lys	Lys	Thr	Arg	Val	Ile
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Lys	Asp	Pro	Ser	Gln	Leu	Asn	Ser	Lys	Gln	Gly	Asn	Gly	Lys	Glu	Ala
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		180						185					190		
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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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			20					25					30		
Gln	Glu	Arg	Gly	Ser	Ala	His	Leu	Val	Ala	Leu	Lys	Cys	Ile	Pro	Lys
			35				40					45			
Lys	Ala	Leu	Arg	Gly	Lys	Glu	Ala	Leu	Val	Glu	Asn	Glu	Ile	Ala	Val
			50			55					60				
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<213> Homo sapiens

<400> 4851

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<210> 4852

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4852

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			20					25					30		
Ser	Ala	Ala	Leu	His	Arg	Arg	Val	Ala	Ala	Met	Arg	Glu	Ala	Gly	Thr
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Ser	Lys	Tyr	Lys	Pro	His	Ile	Leu	Leu	Ser	Gln	Glu	Asn	Thr	Gln	Ile
65					70					75				80	
Arg	Asp	Leu	Gln	Gln	Glu	Asn	Arg	Glu	Leu	Trp	Ile	Ser	Leu	Glu	Glu
			85						90					95	
His	Gln	Asp	Ala	Leu	Glu	Leu	Ile	Met	Ser	Lys	Tyr	Arg	Lys	Gln	Met
			100					105					110		
Leu	Gln	Leu	Met	Val	Ala	Lys	Lys	Ala	Val	Asp	Ala	Glu	Pro	Val	Leu
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Lys	Ala	His	Gln	Ser	His	Ser	Ala	Glu	Ile	Glu	Ser	Gln	Ile	Asp	Arg
	130					135					140				
Ile	Cys	Glu	Met	Gly	Glu	Val	Met	Arg	Lys	Ala	Val	Gln	Val	Asp	Asp
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Asn	Lys	Glu	Leu	Arg	Glu	Leu	Leu	Ser	Ile	Ser	Ser	Glu	Ser	Leu	Gln
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<210> 4853

<211> 1467

<212> DNA

<213> Homo sapiens

<400> 4853

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&lt;210&gt; 4854

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4854

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Glu	Asn	Pro	Glu	Gln	Val	Ala	Ser	Glu	Gly	Leu	Pro	Glu	Pro	Val	Leu
		35					40					45			
Arg	Lys	Val	Glu	Leu	Pro	Val	Pro	Thr	His	Arg	Arg	Pro	Val	Gln	Ala
		50				55					60				
Trp	Val	Glu	Ser	Leu	Arg	Gly	Phe	Glu	Gln	Glu	Arg	Val	Gly	Leu	Ala
65					70				75						80
Asp	Leu	His	Pro	Asp	Val	Phe	Ala	Thr	Ala	Pro	Arg	Leu	Asp	Ile	Leu
			85						90					95	
His	Gln	Val	Ala	Met	Trp	Gln	Lys	Asn	Phe	Lys	Arg	Ile	Ser	Tyr	Ala
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Lys	Thr	Lys	Thr	Arg	Ala	Glu	Val	Arg	Gly	Gly	Gly	Arg	Lys	Pro	Xaa
		115					120					125			
Ala	Ala	Glu	Arg	His	Trp	Ala	Gly	Pro	Ala	Trp	Gln	His	Pro	Leu	Ser
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			165					170						175	
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Pro	Tyr	Ser	Asp	Phe	Pro	Arg	Pro	Leu	Pro	His	Ala	Thr	Gln	Gly	Pro
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&lt;210&gt; 4855

&lt;211&gt; 750

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4855

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<210> 4856

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4856

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			20					25					30		
Thr	Thr	Ala	Gly	Ser	Ala	Phe	Ser	Phe	Ser	Ala	Pro	Thr	Asn	Thr	Gly
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Gln	Gln	Thr	Thr	Leu	Gly	Gly	Leu	Phe	Ser	Gln	Pro	Thr	Gln	Ala	Pro
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Leu	Gln	Ala	Phe	Trp	Gly	Thr	Gly	Lys	Gly	Tyr	Phe	Asn	Asn	Asn	Ile
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Pro	Pro	Val	Glu	Phe	Thr	Gln	Glu	Asn	Pro	Phe	Cys	Arg	Phe	Lys	Ala
				165						170				175	
Val	Gly	Tyr	Ser	Cys	Met	Pro	Ser	Asn	Lys	Asp	Glu	Asp	Gly	Leu	Val
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Val	Leu	Val	Phe	Asn	Lys	Lys	Glu	Thr	Glu	Ile	Arg	Ser	Gln	Gln	Gln
				195				200					205		
Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu	Gly	Gly	Asn	Gln	Thr	Leu
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225

230

235

&lt;210&gt; 4857

&lt;211&gt; 2887

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4857

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&lt;210&gt; 4858

&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4858

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 20           25           30
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 35           40           45
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 50           55           60
Leu Leu Ala Arg Ile Glu Arg Met Glu Arg Arg Met Gln Leu Val Lys
 65           70           75           80
Lys Asp Asn Glu Lys Glu Arg His Lys Leu Phe Gln Gly Tyr Glu Thr
 85           90           95
Glu Glu Arg Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys
 100          105          110
Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe
 115          120          125
Ser Cys Gly Arg Ser Gly Lys Gly His Lys Arg Lys Ser Pro Phe Gly
 130          135          140
Ser Thr Glu Arg Lys Thr Pro Val Lys Lys Leu Ala Pro Glu Phe Ser
 145          150          155          160
Lys Val Lys Thr Lys Thr Pro Lys His Ser Pro Ile Lys Glu Glu Pro
 165          170          175
Cys Gly Ser Leu Ser Glu Thr Val Cys Lys Arg Glu Leu Arg Ser Gln
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 195          200          205
Ser Thr Pro Gln Lys Gly Pro Ser Thr His Pro Lys Glu Lys Ala Phe
 210          215          220
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&lt;210&gt; 4859

&lt;211&gt; 689

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4859

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<210> 4860

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4860

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			20					25					30		
Arg	Val	Ser	Gly	Gly	Leu	Pro	Arg	Cys	Leu	Cys	Trp	Val	Ala	Val	Val
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Val	Pro	Arg	Gly	Met	Glu	Cys	Pro	Gly	Leu	Leu	Gln	Glu	Leu	Ser	Thr
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				85					90					95	
Arg	Leu	Ser	Pro	Pro	Trp	Ala	Phe	Val	Cys	Phe	Gly	Arg	Cys	His	Leu
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Thr	Arg	Thr	Leu	Ile	Phe	Asn	Pro	Ile	Pro	Leu	Pro	Pro	Thr	Leu	Pro
		115					120						125		
His	Phe	Asp	Leu	Ile	Leu	Trp	Leu	Trp	Ala	Glu	Ala	Ser	Gln	Gly	Ser
	130					135					140				
Trp	Val	Gly	Trp	Val	Leu	Arg	Pro	Pro	Gln	Thr	Ser	Thr	Glu	Thr	Cys
145					150					155					160
Pro	Cys	Ala	Val	Cys	Thr	Leu	His	Ser	Leu	Pro	Cys	Leu			
				165						170					

<210> 4861

<211> 1622

<212> DNA

<213> Homo sapiens

<400> 4861

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180  
gcgaagggtg agagttaccg gtgtcgaagc gccttcaagc tcctggaggt gaacgagagg  
240  
caccagattc tgcgggcccg ccttcgggtg ttagactgtg gggcagctcc tggggcctgg  
300  
agtcagggtg cgggtgcagaa ggtcaacgcc gcaggcacag atcccagctc tcctgttggc  
360  
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420  
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480  
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540  
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720  
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780  
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1320  
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1380  
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1440  
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1620  
aa  
1622

<210> 4862  
 <211> 260  
 <212> PRT  
 <213> Homo sapiens

<400> 4862  
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 Gly Tyr Leu Lys Leu Val Cys Val Ser Phe Gln Arg Gln Gly Phe His  
 20 25 30  
 Thr Val Gly Ser Arg Cys Lys Asn Arg Thr Gly Ala Glu His Leu Trp  
 35 40 45  
 Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu  
 50 55 60  
 Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg  
 65 70 75 80  
 His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala  
 85 90 95  
 Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly  
 100 105 110  
 Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu  
 115 120 125  
 His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val  
 130 135 140  
 Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg  
 145 150 155 160  
 Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe  
 165 170 175  
 Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu  
 180 185 190  
 Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys  
 195 200 205  
 Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu  
 210 215 220  
 Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu  
 225 230 235 240  
 Ser Ser Glu Val Tyr Phe Leu Ala Thr Gln Tyr His Gly Arg Lys Gly  
 245 250 255  
 Thr Val Lys Gln  
 260

<210> 4863  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<400> 4863  
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 120  
 accatcaacc ctgaggacga caggatcct ggccatgctg acctggctct ctatatcact  
 180

aggtttgacc tggagttgcc tgatggtaac ncggcagtg ggggcgtcac ccagctgggc  
 240  
 ggggcctgct ccccaacctg gagctgctc attaccgagg aactggcctt cgacctggga  
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 355

<210> 4864  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 4864  
 Leu Gly Ala His Phe Arg Val His Leu Val Lys Met Val Ile Leu Thr  
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 Glu Pro Glu Gly Ala Pro Asn Ile Thr Ala Asn Leu Thr Ser Ser Leu  
 20 25 30  
 Leu Ser Val Cys Gly Trp Ser Gln Thr Ile Asn Pro Glu Asp Asp Thr  
 35 40 45  
 Asp Pro Gly His Ala Asp Leu Val Leu Tyr Ile Thr Arg Phe Asp Leu  
 50 55 60  
 Glu Leu Pro Asp Gly Asn Xaa Ala Val Arg Gly Val Thr Gln Leu Gly  
 65 70 75 80  
 Gly Ala Cys Ser Pro Thr Trp Ser Cys Leu Ile Thr Glu Asp Thr Gly  
 85 90 95  
 Phe Asp Leu Gly Val Thr Ile Ala His Glu Ile Gly His Ser Phe Gly  
 100 105 110  
 Leu Glu His Asp Gly Ala  
 115

<210> 4865  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

<400> 4865  
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 120  
 aaggccttcg ccgacagctc ttacctgctt cgccaccagc gcactcactc tggccagaag  
 180  
 ccctacaagt gcccacattg tggcaaggcc ttgggcgaca gctcctacct cctgcgacac  
 240  
 cagcgcaccc acagccacga gcggccctac agctgcaccg agtgcggaag gtgctatagc  
 300  
 cagaactcgt ccctgcgcag ccatcagagg gtgcacaccg gtcagaggcc cttcagctgt  
 360  
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 420  
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 444

<210> 4866

<211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 4866  
 Thr Gly Glu Lys Pro Tyr Lys Cys Glu Val Cys Ser Lys Ala Phe Ser  
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 Gln Ser Ser Asp Leu Ile Lys His Gln Arg Thr His Thr Gly Glu Arg  
 20 25 30  
 Pro Tyr Lys Cys Pro Arg Cys Gly Lys Ala Phe Ala Asp Ser Ser Tyr  
 35 40 45  
 Leu Leu Arg His Gln Arg Thr His Ser Gly Gln Lys Pro Tyr Lys Cys  
 50 55 60  
 Pro His Cys Gly Lys Ala Phe Gly Asp Ser Ser Tyr Leu Leu Arg His  
 65 70 75 80  
 Gln Arg Thr His Ser His Glu Arg Pro Tyr Ser Cys Thr Glu Cys Gly  
 85 90 95  
 Lys Cys Tyr Ser Gln Asn Ser Ser Leu Arg Ser His Gln Arg Val His  
 100 105 110  
 Thr Gly Gln Arg Pro Phe Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser  
 115 120 125  
 Gln Arg Ser Ala Leu Ile Pro His Ala Arg Ser His Ala Arg Glu Lys  
 130 135 140  
 Pro Phe Thr Arg  
 145

<210> 4867  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 4867  
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 120  
 ccttctccac atccccattc tggtaggaaa agtcacccat gccaggatat cccagccca  
 180  
 gagacagccc caggggggtgc tgcctggaga cagccgggat agcttcagtc tcttgaccct  
 240  
 gacacgggct gcaccaccag acaatgggca ttttcaggcc agactctggc acaaagagaa  
 300  
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 360  
 agcgctctac tcccatagct cccactgta t  
 391

<210> 4868  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 4868  
 Met Gly Val Glu Arg Tyr Leu Leu His Pro Ser Gln Leu Leu Arg Ser

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Leu Trp Ala Ile Ala Leu Ala Leu Pro Leu Leu Phe Val Pro Glu Ser
      20             25             30
Gly Leu Lys Met Pro Ile Val Trp Trp Cys Ser Pro Cys Gln Gly Gln
      35             40             45
Glu Thr Glu Ala Ile Pro Ala Val Ser Arg Gln His Pro Leu Gly Leu
      50             55             60
Ser Leu Gly Trp Gly Tyr Pro Gly Met Gly Asp Phe Ser Tyr Gln Asn
      65             70             75             80
Gly Asp Val Glu Lys Glu Ala Asp Val Pro Arg Leu Val Ala Ser Phe
      85             90             95
Cys Pro Ser His Pro Pro Thr Lys Asp Met Arg Leu Leu Pro Ser Asn
      100            105            110
Leu Leu Gly Ala Ser Pro Asp Arg Thr Pro Ser Gly Ile
      115            120            125

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<210> 4869  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

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<400> 4869
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tgggaaactca atggtgtttgc taccttttga tggactcgga ggcagcccag cttcctggga
120
caggactgca cggactgcct ggggaggggt ctttggcccc ccggttcctg caggggggct
180
cggggaggcc ctgtgagcag ttggtcacag gtgggtccca ttcgatgcga tcctgttcct
240
ccccaacagc cctggagaag ggggacgttg cctgctgtgg ctgcggctgt tttcctggcc
300
tgtgagagggc ggggccagag tggccgttgg gaatctgggt gttgcaaggt gaccacaaa
360
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418

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<210> 4870  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

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<400> 4870
Met Ala Met Gly Ile Gly Trp Glu Leu Asn Gly Val Ala Thr Phe Gly
  1             5             10             15
Trp Thr Arg Arg Gln Pro Ser Phe Leu Gly Gln Asp Cys Thr Asp Cys
      20             25             30
Leu Gly Arg Gly Leu Trp Pro Pro Gly Ser Cys Arg Gly Ala Arg Gly
      35             40             45
Gly Pro Val Ser Ser Trp Ser Gln Val Gly Pro Ile Arg Cys Asp Pro
      50             55             60
Val Pro Pro Gln Gln Pro Trp Arg Arg Gly Thr Leu Pro Ala Val Ala
      65             70             75             80
Ala Ala Val Phe Leu Ala Cys Glu Arg Arg Gly Gln Ser Gly Arg Trp

```



				85						90					95				
Glu	Ser	Gly	Cys	Cys	Lys	Val	Thr	Thr	Asn	Ser	Ser	Leu	Gly	Glu	Glu				
			100						105				110						
Glu	Glu	Asn	Ala	Ile	Asp	Phe	Gln	Glu	Pro	Ser	Glu	Val							
		115					120					125							

&lt;210&gt; 4871

&lt;211&gt; 1354

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4871

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120
cagccctca ggccatgctg ctgctcagct gcatggcaaa gtctgcaca tgctccttca
180
gagtctggcg ggcattctgc tgtgcccgt tctcccgtgc ccgctcctgc tgcagcttgg
240
tcagtctcaa ccgcagccgc tgcctccgcc gcttgaggc ctgcagctgg cgtggggcct
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tgtcaagggc atcaagggct gcctggctcg ccgcttcag agtaaggcgc tgcccacctg
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480
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540
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600
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660
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780
atggtgggga ctgccccct ctttagcctg tgatatccac tgattccac cagctcaaag
840
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960
tccttcttgg gaagtctgtg gagccacaaa ccgctgagca ccaggtgtc cacagccctg
1020
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1080
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1140
cctcgagaag aaaagcagtt tcctcagcgt catctggcag gtaacagagt ggggagggtc
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caagccggct agacttccc tctccctt cccgactgca ttcagtccc cggggaccgt
1260

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tccgcttcac ctcccaccca cagggttcaag cctcctcagt atctgagaaa ggcgcgaagc  
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 1354

<210> 4872  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 4872  
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 Gln Pro Leu Arg Pro Cys Cys Cys Ser Ala Ala Trp Gln Ser Pro Ala  
 20 25 30  
 His Ala Pro Ser Glu Ser Gly Gly His Leu Pro Val Pro Ala Ser Pro  
 35 40 45  
 Val Pro Ala Pro Ala Ala Ala Trp Ser Val Ser Thr Ala Ala Ala Ala  
 50 55 60  
 Pro Ala Ala Cys Arg Pro Ala Ala Gly Ala Gly Pro Cys Gln Gly His  
 65 70 75 80  
 Gln Gly Leu Pro Gly Ser Pro Leu Pro Glu  
 85 90

<210> 4873  
 <211> 948  
 <212> DNA  
 <213> Homo sapiens

<400> 4873  
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 120  
 ccactgtgag ttgaactctt tcgtgttgac cggccactct ccgtgctctg gatgatgtcg  
 180  
 gaacacgacc tggccgatgt ggttcaaatt gcagtgaag acctgagccc tgaccaccca  
 240  
 ggtacagagc tgtgggacag tgttgttttg gagaatcatg tagtgacaga tgaagacgaa  
 300  
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 360  
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 420  
 gccctggagg ctacttgtaa atccttagaa gaaaagctgg atctggtcac gaacaagcag  
 480  
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 540  
 aacaaagtgc gatggtaaga acagaccagg gtgccggggc cttcaggtca cttggggaga  
 600  
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 660  
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 720

cgaacacatg gcatactgcc aggatgacct gaagtcaccc tcacctttcc tttccacata  
 780  
 aagccggccc atacaccttt tctttggaac taaccacca gatcttagaa gatgtacacg  
 840  
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<210> 4874

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4874

Met	Met	Ser	Glu	His	Asp	Leu	Ala	Asp	Val	Val	Gln	Ile	Ala	Val	Glu
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Asp	Leu	Ser	Pro	Asp	His	Pro	Gly	Thr	Glu	Leu	Trp	Asp	Ser	Val	Val
			20					25					30		
Leu	Glu	Asn	His	Val	Val	Thr	Asp	Glu	Asp	Glu	Pro	Ala	Leu	Lys	Arg
		35					40					45			
Gln	Arg	Leu	Glu	Ile	Asn	Cys	Gln	Asp	Pro	Ser	Ile	Lys	Ser	Phe	Leu
	50					55					60				
Tyr	Ser	Ile	Asn	Gln	Thr	Ile	Cys	Leu	Arg	Leu	Asp	Ser	Ile	Glu	Ala
65				70					75					80	
Lys	Leu	Gln	Ala	Leu	Glu	Ala	Thr	Cys	Lys	Ser	Leu	Glu	Glu	Lys	Leu
				85					90					95	
Asp	Leu	Val	Thr	Asn	Lys	Gln	His	Ser	Pro	Ile	Gln	Val	Pro	Met	Val
			100						105					110	
Ala	Gly	Ser	Pro	Leu	Arg	Thr	Thr	Gln	Met	Cys	Asn	Lys	Val	Arg	Trp
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<210> 4875

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4875

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 180  
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 240  
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 420  
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 480

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 660  
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 720  
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 780  
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 840  
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 aatgggtcca gccctctcct ggtggccgcg tttggcgctt gctctctcac caggcagtg  
 1080  
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 1200  
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 1255

<210> 4876  
 <211> 230  
 <212> PRT  
 <213> Homo sapiens

<400> 4876  
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 Ala Val His Glu Val Glu Lys Trp Leu Pro Arg Leu His Ala Leu Val  
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 Val Gly Thr Gly Leu Gly Arg Asp Asp Ala Leu Leu Arg Asn Val Gln  
 35 40 45  
 Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile Pro Val Val Ile Asp  
 50 55 60  
 Ala Asp Gly Leu Trp Leu Val Ala Gln Gln Pro Ala Leu Ile His Gly  
 65 70 75 80  
 Tyr Arg Lys Ala Val Leu Thr Pro Asn His Val Glu Phe Ser Arg Leu  
 85 90 95  
 Tyr Asp Ala Val Leu Arg Gly Pro Met Asp Ser Asp Asp Ser His Gly  
 100 105 110  
 Ser Val Leu Arg Leu Ser Gln Ala Leu Gly Asn Val Thr Val Val Gln  
 115 120 125  
 Lys Gly Glu Arg Asp Ile Leu Ser Asn Gly Gln Gln Val Leu Val Cys  
 130 135 140  
 Ser Gln Glu Gly Ser Ser Arg Arg Cys Gly Gly Gln Gly Asp Leu Leu  
 145 150 155 160  
 Ser Gly Ser Leu Gly Val Leu Val His Trp Ala Leu Leu Ala Gly Pro

				165					170					175					
Gln	Lys	Thr	Asn	Gly	Ser	Ser	Pro	Leu	Leu	Val	Ala	Ala	Phe	Gly	Ala				
			180					185					190						
Cys	Ser	Leu	Thr	Arg	Gln	Cys	Asn	His	Gln	Ala	Phe	Gln	Lys	His	Gly				
		195				200						205							
Arg	Ser	Thr	Thr	Thr	Ser	Asp	Met	Ile	Ala	Glu	Val	Gly	Ala	Ala	Phe				
	210					215					220								
Ser	Lys	Leu	Phe	Glu	Thr														
225					230														

&lt;210&gt; 4877

&lt;211&gt; 1182

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4877

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gttcaatgaa tgcgtgcgga atgaatgaac gactctagtg aaagagactc caatgacgca
180
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<211> 122

<212> PRT

<213> Homo sapiens

<400> 4878

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Phe	Met	Asn	Ile	Arg	Leu	Ala	Lys	Val	Thr	Tyr	Thr	Asp	Arg	Trp	Gly
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Tyr	Val	His	Ile	Pro	Asp	Asp	Val	Asn	Ile	Thr	Ser	Thr	Ile	Glu	Gln
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Gln	Leu	Gln	Ile	Ile	His	Arg	Val	Arg	Asn	Phe	Gly	Gly	Lys	Gly	Gln
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<210> 4879

<211> 1941

<212> DNA

<213> Homo sapiens

<400> 4879

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<211> 202

<212> PRT

<213> Homo sapiens

<400> 4880

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	20		25		30										
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Gln	Arg	Lys	Asp	Asn	Glu	Gln	Met	Ala	Ile	Val	Glu	Asn	Ser	Val	Val
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Cys	Phe	Ser	Asn	Ala	Thr	Tyr	Phe	Ser	Arg	Gln	Val	Ile	Leu	Pro	Met
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Glu	Ala	Gly	Val	Ser	Val	Gly	Gly	Gly	Glu	Glu	Gly	Thr	Ser	Ala	Phe
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&lt;210&gt; 4881

&lt;211&gt; 1333

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4881

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 <213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4884

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		20					25					30			
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Leu Leu Gly Lys Asn Arg Ile Lys Lys Ile Ser Asn Leu Glu Asn Leu
      85          90          95
Lys Ser Leu Asp Val Leu Asp Leu His Gly Asn Gln Ile Thr Lys Ile
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Glu Asn Ile Asn His Leu Cys Glu Leu Arg Val Leu Asn Leu Ala Arg
      115         120         125
Asn Phe Leu Ser His Val Asp Asn Leu Asn Gly Leu Asp Ser Leu Thr
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Glu Leu Asn Leu Arg His Asn Gln Ile Thr Phe Val Arg Asp Val Asp
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Asn Leu Pro Cys Leu Gln His Leu Phe Leu Ser Phe Asn Asn Ile Ser
      165         170         175
Ser Phe Asp Ser Val Ser Cys Leu Ala Asp Ser Ser Ser Leu Ser Asp
      180         185         190
Ile Thr Phe Asp Gly Asn Pro Ile Ala Gln Glu Ser Trp Tyr Lys His
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225         230         235         240
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Lys Arg Leu Thr Ile Asn Asn Val Ala Arg Gln Trp Asp Leu Gln Gln
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      340         345         350
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&lt;211&gt; 489

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4885

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<211> 429

<212> PRT

<213> Homo sapiens

<400> 4888

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Gln	Leu	Phe	Asp	Glu	Pro	Asp	Ser	Asp	Ser	Gly	Leu	Ser	Leu	Asp	Ser
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Cys	Asp	Glu	Gly	Ala	Ile	Gly	Tyr	Cys	Thr	Asp	His	Glu	Ser	Ser	Ser
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Glu Thr Leu Lys Arg Glu Gln Ala Gln Cys Asn Lys Ala Ile Asn Ile				
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Met Lys Gln Lys Leu His Asp Leu Tyr His Asp Ile Phe Ser Arg Leu				
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&lt;210&gt; 4889

&lt;211&gt; 619

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4889

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&lt;210&gt; 4890

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4890

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 1080



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&lt;210&gt; 4892

&lt;211&gt; 216

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4892

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		20					25					30			
Ile	Lys	Arg	Gly	Arg	Gln	Ala	Glu	Glu	Glu	Cys	Ala	His	Arg	Gly	Ser
		35				40					45				
Pro	Leu	Pro	Lys	Lys	Arg	Lys	Gly	Arg	Pro	Pro	Gly	His	Ile	Leu	Ser
		50				55					60				
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Pro	Ile	Arg	Arg	Glu	Gly	Pro	Lys	Trp	Asp	Pro	Ala	Arg	Leu	Asn	Glu
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Ser	Thr	Thr	Phe	Val	Leu	Gly	Ser	Arg	Ala	Asn	Lys	Ala	Leu	Gly	Met
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165	170	175
Lys Leu Glu Glu Leu Lys Ser Phe Val Leu Pro Ser Trp Met Val Glu		
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 <213> Homo sapiens

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&lt;210&gt; 4894

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4894

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<212> DNA
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 <213> Homo sapiens

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 Glu Leu Ser Val Ile Lys Ser Arg Tyr Gln Thr Leu Tyr Ala Arg Phe  
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<210> 4897  
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<400> 4897

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 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 4898  
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 Ser Ser Trp Asp Tyr Arg Arg Pro Pro Arg Cys Pro Ala Asn Phe Cys  
 35 40 45  
 Ile Phe Ser Lys Asp Arg Val Ser Pro Cys Trp Leu Gly Trp Ser Gln  
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 <212> DNA  
 <213> Homo sapiens

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<400> 4900  
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			20					25					30				
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		35					40					45					
Gly	Gly	Gly	Glu	His	Leu	Pro	Phe	Pro	Gln	Pro	Cys	Val	His	Pro	Gln		
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			85						90					95			
Val	Leu	Thr	Lys	Glu	Ala	Leu	Gly	Val	Ala	Val	Pro	Ala	Pro	Met	Gly		
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			115														

&lt;210&gt; 4901

&lt;211&gt; 1520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4901

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960

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&lt;210&gt; 4902

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4902

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Ala	Lys	Ala	Ala	Ile	Val	Cys	Tyr	Asp	Leu	Thr	Asp	Ser	Ser	Ser	Phe
			85					90						95	
Glu	Arg	Ala	Lys	Phe	Trp	Val	Lys	Glu	Leu	Arg	Ser	Leu	Glu	Glu	Gly
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Cys	Gln	Ile	Tyr	Leu	Cys	Gly	Thr	Lys	Ser	Asp	Leu	Leu	Glu	Glu	Asp
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145					150					155					160
Gly	Gly	Ser	Lys	Lys	Ile	Gly	Thr	Ala	Leu	Ala	Ala	Arg	Ala	Arg	Cys
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&lt;210&gt; 4903

&lt;211&gt; 1064

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4903

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&lt;210&gt; 4904

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4904

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Leu Leu Glu Lys Lys Thr Ala Glu Arg Arg Gly Gly Ala Phe Ser Arg
20          25          30
Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val
35          40          45
Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala

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Gln Leu Tyr Lys Glu	Glu Gly Asn Gln Arg Tyr Arg Glu Gly Lys Tyr			
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 <212> DNA  
 <213> Homo sapiens

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<210> 4906  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<400> 4906  
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 Gln Leu Pro Trp Glu Ala Leu Gly Arg Leu Gly Asn Val Asn Thr Leu  
 35 40 45  
 Gly Leu Asp His Asn Leu Leu Ala Ser Val Pro Ala Gly Ala Phe Ser  
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<210> 4908

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4908

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<210> 4909

<211> 1960

<212> DNA

<213> Homo sapiens

<400> 4909

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1960



<210> 4910  
 <211> 423  
 <212> PRT  
 <213> Homo sapiens

<400> 4910  
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 35 40 45  
 Ile Leu Ala His Gly Gly Val Arg Phe Met Trp Ile Lys His Asn Asn  
 50 55 60  
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 65 70 75 80  
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 Glu Leu Glu Glu Glu Ser Ile Arg Asp Asn Phe Val Ile Ile Tyr Glu  
 100 105 110  
 Leu Leu Asp Glu Leu Met Asp Phe Gly Phe Pro Gln Thr Thr Asp Ser  
 115 120 125  
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 Gly Lys Ser Arg Val Pro Pro Thr Val Thr Asn Ala Val Ser Trp Arg  
 145 150 155 160  
 Ser Glu Gly Ile Lys Tyr Lys Lys Asn Glu Val Phe Ile Asp Val Ile  
 165 170 175  
 Glu Ser Val Asn Leu Leu Val Asn Ala Asn Gly Ser Val Leu Leu Ser  
 180 185 190  
 Glu Ile Val Gly Thr Ile Lys Met Arg Val Phe Leu Ser Gly Met Pro  
 195 200 205  
 Glu Leu Arg Leu Gly Leu Asn Asp Lys Val Leu Phe Asp Asn Thr Gly  
 210 215 220  
 Arg Gly Lys Ser Lys Ser Val Glu Leu Glu Asp Val Lys Phe His Gln  
 225 230 235 240  
 Cys Val Arg Leu Ser Arg Phe Glu Asn Asp Arg Thr Ile Ser Phe Ile  
 245 250 255  
 Pro Pro Asp Gly Glu Phe Glu Leu Met Ser Tyr Arg Leu Asn Thr His  
 260 265 270  
 Val Lys Pro Leu Ile Trp Ile Glu Ser Val Ile Glu Lys Phe Ser His  
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 Ser Arg Ile Glu Tyr Met Val Lys Ala Lys Gly Gln Phe Lys Lys Gln  
 290 295 300  
 Ser Val Ala Asn Gly Val Glu Ile Ser Val Pro Val Pro Ser Asp Ala  
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 Asp Ser Pro Arg Phe Lys Thr Ser Val Gly Ser Ala Lys Tyr Val Pro  
 325 330 335  
 Glu Arg Asn Val Val Ile Trp Ser Ile Lys Ser Phe Pro Gly Gly Lys  
 340 345 350  
 Glu Tyr Leu Met Arg Ala His Phe Gly Leu Pro Ser Val Glu Lys Glu  
 355 360 365  
 Glu Val Glu Gly Arg Pro Pro Ile Gly Val Lys Phe Glu Ile Pro Tyr

370	375	380
Phe Thr Val Ser Gly Ile Gln Val Arg Tyr Met Lys Ile Ile Glu Lys		
385	390	395
Ser Gly Tyr Gln Ala Leu Pro Trp Val Arg Tyr Ile Thr Gln Ser Gly		400
	405	410
Asp Tyr Gln Leu Arg Thr Ser		415
420		

<210> 4911  
 <211> 1862  
 <212> DNA  
 <213> Homo sapiens

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 1380  
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<210> 4912

<211> 453

<212> PRT

<213> Homo sapiens

<400> 4912

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			20					25					30		
Leu	Lys	Ala	Ile	Leu	Ile	Gln	Arg	Gln	Ile	Asp	Val	Asp	Thr	Val	Phe
		35				40					45				
Glu	Val	Glu	Asp	Glu	Asn	Met	Val	Leu	Ala	Ser	Tyr	Lys	Gln	Gly	Tyr
	50					55					60				
Trp	Leu	Pro	Ser	Tyr	Lys	Leu	Lys	Ser	Ser	Trp	Ala	Thr	Gly	Leu	His
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Leu	Ser	Val	Leu	Phe	Gly	His	Val	Glu	Cys	Leu	Leu	Val	Leu	Leu	Asp
			85					90					95		
His	Asn	Ala	Thr	Ile	Asn	Cys	Arg	Pro	Asn	Gly	Lys	Thr	Pro	Leu	His
			100					105					110		
Val	Ala	Cys	Glu	Met	Ala	Asn	Val	Asp	Cys	Val	Lys	Ile	Leu	Cys	Asp
		115					120					125			
Arg	Gly	Ala	Lys	Leu	Asn	Cys	Tyr	Ser	Leu	Ser	Gly	His	Thr	Ala	Leu
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Trp	Arg	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu	Val	Asn
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      195      200      205
Gln Asp Glu Glu Thr Pro Leu His Thr Ala Ala His Phe Gly Leu Ser
      210      215      220
Glu Leu Val Ala Phe Tyr Val Glu His Gly Ala Ile Val Asp Ser Val
      225      230      235      240
Asn Ala His Met Glu Thr Pro Leu Ala Ile Ala Ala Tyr Trp Ala Leu
      245      250      255
Arg Phe Lys Glu Gln Glu Tyr Ser Thr Glu His His Leu Val Cys Arg
      260      265      270
Met Leu Leu Asp Tyr Lys Ala Glu Val Asn Ala Arg Asp Asp Phe
      275      280      285
Lys Ser Pro Leu His Lys Ala Ala Trp Asn Cys Asp His Val Leu Met
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His Met Met Leu Glu Ala Gly Ala Glu Ala Asn Leu Met Asp Ile Asn
      305      310      315      320
Gly Cys Ala Ala Ile Gln Tyr Val Leu Lys Val Thr Ser Val Arg Pro
      325      330      335
Ala Ala Gln Pro Glu Ile Cys Tyr Gln Leu Leu Leu Asn His Gly Ala
      340      345      350
Ala Arg Ile Tyr Pro Pro Gln Phe His Lys Val Ile Gln Ala Cys His
      355      360      365
Ser Cys Pro Lys Ala Ile Glu Val Val Val Asn Ala Tyr Glu His Ile
      370      375      380
Arg Trp Asn Thr Lys Trp Arg Arg Ala Ile Pro Asp Asp Asp Leu Glu
      385      390      395      400
Val Asn Asn Arg Phe Pro Ser Asn Ser Phe His Tyr Gln Val Leu Pro
      405      410      415
Asp Cys Ser Arg Ser Thr Glu Asn Cys Asn Lys Lys Val Gly Phe Glu
      420      425      430
Asn Ala Phe Lys Ala Tyr Ser Asn Ala Met Arg Gln Arg Val Ile Lys
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Cys Arg Phe Glu Ser
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&lt;210&gt; 4913

&lt;211&gt; 2090

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4913

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360

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1980

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<210> 4914  
 <211> 529  
 <212> PRT  
 <213> Homo sapiens

<400> 4914  
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 Phe Phe Lys Met Ala Val Thr Tyr Ser Arg Leu Phe Pro Pro Ala Phe  
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 Arg Arg Leu Phe Glu Phe Phe Val Leu Leu Lys Ala Leu Phe Val Leu  
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 Phe Val Leu Ala Tyr Ile His Ile Val Phe Ser Arg Ser Pro Ile Asn  
 85 90 95  
 Cys Leu Glu His Val Arg Asp Lys Trp Pro Arg Glu Gly Ile Leu Arg  
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 Val Glu Val Arg His Asn Ser Ser Arg Ala Pro Val Phe Leu Gln Phe  
 115 120 125  
 Cys Asp Ser Gly Gly Arg Gly Ser Phe Pro Gly Leu Ala Val Glu Pro  
 130 135 140  
 Gly Ser Asn Leu Asp Met Glu Asp Glu Glu Glu Glu Glu Leu Thr Met  
 145 150 155 160  
 Glu Met Phe Gly Asn Ser Ser Ile Lys Phe Glu Leu Asp Ile Glu Pro  
 165 170 175  
 Lys Val Phe Lys Pro Pro Ser Ser Thr Glu Ala Leu Asn Asp Ser Gln  
 180 185 190  
 Glu Phe Pro Phe Pro Glu Thr Pro Thr Lys Val Trp Pro Gln Asp Glu  
 195 200 205  
 Tyr Ile Val Glu Tyr Ser Leu Glu Tyr Gly Phe Leu Arg Leu Ser Gln  
 210 215 220  
 Ala Thr Arg Gln Arg Leu Ser Ile Pro Val Met Val Val Thr Leu Asp  
 225 230 235 240  
 Pro Thr Arg Asp Gln Cys Phe Gly Asp Arg Phe Ser Arg Leu Leu Leu  
 245 250 255  
 Asp Glu Phe Leu Gly Tyr Asp Asp Ile Leu Met Ser Ser Val Lys Gly  
 260 265 270  
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 Gly Glu His Tyr Arg Phe Val Ser Met Trp Met Ala Arg Thr Ser Tyr  
 290 295 300  
 Leu Ala Ala Phe Ala Ile Met Val Ile Phe Thr Leu Ser Val Ser Met  
 305 310 315 320  
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<210> 4915
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<212> DNA
<213> Homo sapiens
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<210> 4916

<211> 59

<212> PRT

<213> Homo sapiens

<400> 4916

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Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
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<210> 4917

<211> 1544

<212> DNA

<213> Homo sapiens

<400> 4917

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&lt;210&gt; 4918

&lt;211&gt; 347

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4918

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				20				25					30		
Trp	Leu	Gly	Leu	Ala	Gly	Pro	Gly	Ala	Ala	Ala	Asp	Gly	Ser	Glu	Pro
				35				40					45		
Ala	Ala	Gly	Ala	Gly	Arg	Gly	Gly	Ala	Arg	Ala	Val	Arg	Val	Asp	Val
				50			55				60				
Arg	Leu	Pro	Arg	Gln	Asp	Ala	Leu	Val	Leu	Glu	Gly	Val	Arg	Ile	Gly

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Val Ala Tyr Val Gly Lys Glu Gln Ala Ala Gln Phe His Gln Glu Asn
115             120             125
Lys Gly Ser Gly Pro Gln Ala Tyr Pro Lys Ala Leu Val Gln Gln Met
130             135             140
Arg Arg Ala Leu Phe Leu Gly Ala Ser Ala Leu Leu Leu Ile Leu
145             150             155             160
Asn His Asn Val Val Arg Glu Leu Asp Ile Ser Gln Leu Leu Leu Arg
165             170             175
Pro Val Ile Val Leu His Tyr Ser Ser Asn Val Thr Lys Leu Leu Asp
180             185             190
Ala Leu Leu Gln Arg Thr Gln Ala Thr Ala Glu Ile Thr Ser Gly Glu
195             200             205
Ser Leu Ser Ala Asn Ile Glu Trp Lys Leu Thr Leu Trp Thr Thr Cys
210             215             220
Gly Leu Ser Lys Asp Gly Tyr Gly Gly Trp Gln Asp Leu Val Cys Leu
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245             250             255
Ala Ile Leu Leu Val Ala Met Leu Leu Cys Thr Gly Leu Val Val Gln
260             265             270
Ala Gln Arg Gln Ala Ser Arg Gln Ser Gln Arg Glu Leu Gly Gly Gln
275             280             285
Val Asp Leu Phe Lys Arg Arg Val Val Arg Arg Leu Ala Ser Leu Lys
290             295             300
Thr Arg Arg Cys Arg Leu Ser Arg Ala Ala Gln Gly Leu Pro Asp Pro
305             310             315             320
Gly Ala Glu Thr Cys Ala Val Cys Leu Asp Tyr Phe Cys Asn Lys Gln
325             330             335
Ala Ser Ala Pro Val Ala Pro Gly Ala Ala Leu
340             345

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&lt;210&gt; 4919

&lt;211&gt; 1362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4919

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360

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 1362

&lt;210&gt; 4920

&lt;211&gt; 194

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4920

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Lys	Val	Pro	Ala	Ile	Gln	Gln	Lys	Arg	Thr	Val	Ala	Phe	Leu	Asn	Gln
			20					25					30		
Phe	Val	Val	His	Thr	Val	Gln	Phe	Leu	Asn	Arg	Phe	Ser	Thr	Val	Cys
			35				40					45			
Glu	Glu	Lys	Leu	Ala	Asp	Leu	Ser	Leu	Arg	Ile	Gln	Gln	Ile	Glu	Thr
			50			55					60				
Thr	Leu	Asn	Ile	Leu	Asp	Ala	Lys	Leu	Ser	Ser	Ile	Pro	Gly	Leu	Asp
65					70					75				80	
Asp	Val	Thr	Val	Glu	Val	Ser	Pro	Leu	Asn	Val	Thr	Ser	Val	Thr	Asn
				85					90					95	
Gly	Ala	His	Pro	Glu	Ala	Thr	Ser	Glu	Gln	Pro	Gln	Gln	Asn	Ser	Thr

			100					105					110				
Gln	Asp	Ser	Gly	Leu	Gln	Glu	Ser	Glu	Val	Ser	Ala	Glu	Asn	Ile	Leu		
			115					120					125				
Thr	Val	Ala	Lys	Asp	Pro	Arg	Tyr	Ala	Arg	Tyr	Leu	Lys	Met	Val	Gln		
			130					135					140				
Val	Gly	Val	Pro	Val	Met	Ala	Ile	Arg	Asn	Lys	Met	Ile	Ser	Glu	Gly		
145					150					155				160			
Leu	Asp	Pro	Asp	Leu	Leu	Glu	Arg	Pro	Asp	Ala	Pro	Val	Pro	Asp	Gly		
				165					170					175			
Glu	Ser	Glu	Lys	Thr	Val	Glu	Glu	Ser	Ser	Asp	Ser	Glu	Ser	Ser	Phe		
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Ser	Asp																

&lt;210&gt; 4921

&lt;211&gt; 1272

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4921

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240
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300
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420
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480
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660
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780
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840
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900
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960
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1020

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 1140  
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<210> 4922

<211> 342

<212> PRT

<213> Homo sapiens

<400> 4922

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		20						25					30		
Val	Glu	Gln	Lys	Cys	Glu	Val	Phe	Asp	Asp	Glu	Glu	Glu	Ser	Lys	Leu
		35					40					45			
Thr	Tyr	Thr	Glu	Ile	His	Gln	Glu	Tyr	Lys	Glu	Leu	Val	Glu	Lys	Leu
	50					55					60				
Leu	Glu	Gly	Tyr	Leu	Lys	Glu	Ile	Gly	Ile	Asn	Glu	Asp	Gln	Phe	Gln
65					70					75					80
Glu	Ala	Cys	Thr	Ser	Pro	Leu	Ala	Lys	Thr	His	Thr	Ser	Gln	Ala	Ile
				85					90					95	
Leu	Gln	Pro	Val	Leu	Ala	Ala	Glu	Asp	Phe	Thr	Ile	Phe	Lys	Ala	Met
			100					105						110	
Met	Val	Gln	Lys	Asn	Ile	Glu	Met	Gln	Leu	Gln	Ala	Ile	Arg	Ile	Ile
		115						120					125		
Gln	Glu	Arg	Asn	Gly	Val	Leu	Pro	Asp	Cys	Leu	Thr	Asp	Gly	Ser	Asp
		130				135						140			
Val	Val	Ser	Asp	Leu	Glu	His	Glu	Glu	Met	Lys	Ile	Leu	Arg	Glu	Val
145					150					155					160
Leu	Arg	Lys	Ser	Lys	Glu	Glu	Tyr	Asp	Gln	Glu	Glu	Glu	Arg	Lys	Arg
				165					170					175	
Lys	Lys	Gln	Leu	Ser	Glu	Ala	Lys	Thr	Glu	Glu	Pro	Thr	Val	His	Ser
			180						185					190	
Ser	Glu	Ala	Ala	Ile	Met	Asn	Asn	Ser	Gln	Gly	Asp	Gly	Glu	His	Phe
		195					200					205			
Ala	His	Pro	Pro	Ser	Glu	Val	Lys	Met	His	Phe	Ala	Asn	Gln	Ser	Ile
		210					215					220			
Glu	Pro	Leu	Gly	Arg	Lys	Val	Glu	Arg	Ser	Glu	Thr	Ser	Ser	Leu	Pro
225					230					235					240
Gln	Lys	Gly	Leu	Lys	Ile	Pro	Gly	Leu	Glu	His	Ala	Ser	Ile	Glu	Gly
				245						250				255	
Pro	Ile	Ala	Asn	Leu	Ser	Val	Leu	Gly	Thr	Glu	Glu	Leu	Arg	Gln	Arg
			260						265					270	
Glu	His	Tyr	Leu	Lys	Gln	Lys	Arg	Asp	Lys	Leu	Met	Ser	Met	Arg	Lys
		275					280						285		
Asp	Met	Arg	Thr	Lys	Gln	Ile	Gln	Asn	Met	Glu	Gln	Lys	Gly	Lys	Pro

290                                      295                                      300  
 Thr Gly Glu Val Glu Glu Met Thr Glu Lys Pro Glu Met Thr Ala Glu  
 305                                      310                                      315                                      320  
 Glu Lys Gln Thr Leu Leu Lys Arg Arg Leu Leu Ala Glu Lys Leu Lys  
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 Glu Glu Val Ile Asn Lys  
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<210> 4923

<211> 765

<212> DNA

<213> Homo sapiens

<400> 4923

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<210> 4924

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4924

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 Val Gly Ser Leu Lys Pro Ser Ala Pro Xaa Pro Arg Thr Ser Phe Ser  
                                     20                                      25                                      30  
 Ser Ala Ser Arg Ser Ser Ser Ala Ser Lys Ser Ser Ser Ser Val Pro  
                                     35                                      40                                      45  
 Ser Ser Ser Ser Ser Ser Gly Ser Leu Met His Arg Leu Ala Ile Phe

50		55		60	
Ser Met Ala Ser Ile Gly Lys Gly Pro Leu Pro Leu Ser Phe Ser Arg					
65		70		75	80
Ala Gly Gly Trp Pro Pro Thr Lys Ala Lys Asn Ser Ala Ser Ser Ser					
	85		90		95
Ser Ser Leu Ala Pro Ser Ser Gly Ile Ile Arg Pro Ser Gly Glu Arg					
	100		105		110
Ser Thr Ser Arg Pro Ser Trp Arg Ala Ala Ala Pro Leu Pro Gly					
	115		120		125
Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg					
	130		135		140
Thr Thr Cys Pro Gln Ala Arg Pro Cys Pro Ala Pro Ser Pro Gly Ser					
145		150		155	160
Val Ala Ala His Ser Pro Phe Leu Ser Pro Ala Leu Leu Val Gly Ala					
	165		170		175
Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro					
	180		185		190
Leu Pro Pro Arg Ala Ser Gly Ala Ala Ala Pro Xaa Ser Ala Ala Ser					
	195		200		205
Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile					
	210		215		220
Ser Gln Gly Glu Asp Lys Met Thr Lys Arg Lys Lys Leu Arg Thr Ser					
225		230		235	240
Ala Pro Leu Met Arg Lys Gln Asp Leu Pro Ala Gly Ser Ser Val					
	245		250		255

&lt;210&gt; 4925

&lt;211&gt; 374

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4925

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120

agtgatgagg ccgaggacgc tgagctctat gatgaccttt actgcccagc atgtgacaaa  
180

tcgttcaaga cagaaaaggc catgaagaat cagcagaagt caaagaagca tcgggaaatg  
240

gtggccttgc taaaacaaca gctggaggag gaagaagaaa atttttcaag acctcaaatt  
300

gatgaaaatc cattagatga caattctgag gaagaaatgg aagatgcacc aaaacaaaag  
360

ctttctaaaa aaaa

374

&lt;210&gt; 4926

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4926

Ala Asn Leu Glu Lys Glu Leu Gln Glu Met Glu Ala Arg Tyr Glu Lys

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Glu Phe Gly Asp Gly Ser Asp Glu Asn Glu Met Glu Glu His Glu Leu			
	20	25	30
Lys Asp Glu Glu Asp Gly Lys Asp Ser Asp Glu Ala Glu Asp Ala Glu			
	35	40	45
Leu Tyr Asp Asp Leu Tyr Cys Pro Ala Cys Asp Lys Ser Phe Lys Thr			
	50	55	60
Glu Lys Ala Met Lys Asn His Glu Lys Ser Lys Lys His Arg Glu Met			
65		70	75
Val Ala Leu Leu Lys Gln Gln Leu Glu Glu Glu Glu Asn Phe Ser			80
	85	90	95
Arg Pro Gln Ile Asp Glu Asn Pro Leu Asp Asp Asn Ser Glu Glu Glu			
	100	105	110
Met Glu Asp Ala Pro Lys Gln Lys Leu Ser Lys Lys			
	115	120	

&lt;210&gt; 4927

&lt;211&gt; 1649

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4927

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960

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 1649

&lt;210&gt; 4928

&lt;211&gt; 405

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4928

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Ser	His	Lys	Asp	Leu	Ala	Gly	Lys	Tyr	Arg	Gln	Ile	Leu	Glu	Lys	Ala
			20					25					30		
Ile	Gln	Leu	Ser	Gly	Ala	Glu	Gln	Leu	Glu	Ala	Leu	Lys	Ala	Phe	Val
		35					40						45		
Glu	Ala	Met	Val	Asn	Glu	Asn	Val	Ser	Leu	Val	Ile	Ser	Arg	Gln	Leu
		50				55					60				
Leu	Thr	Asp	Phe	Cys	Thr	His	Leu	Pro	Asn	Leu	Pro	Asp	Ser	Thr	Ala
65					70					75				80	
Lys	Glu	Ile	Tyr	His	Phe	Thr	Leu	Glu	Lys	Ile	Gln	Pro	Arg	Val	Ile
			85						90					95	
Ser	Phe	Glu	Glu	Gln	Val	Ala	Ser	Ile	Arg	Gln	His	Leu	Ala	Ser	Ile
			100						105				110		
Tyr	Glu	Lys	Glu	Glu	Asp	Trp	Arg	Asn	Ala	Ala	Gln	Val	Leu	Val	Gly
		115					120					125			
Ile	Pro	Leu	Glu	Thr	Gly	Gln	Lys	Gln	Tyr	Asn	Val	Asp	Tyr	Lys	Leu
	130						135					140			
Glu	Thr	Tyr	Leu	Lys	Ile	Ala	Arg	Leu	Tyr	Leu	Glu	Asp	Asp	Asp	Pro
145					150					155					160
Val	Gln	Ala	Glu	Ala	Tyr	Ile	Asn	Arg	Ala	Ser	Leu	Leu	Gln	Asn	Glu
				165					170					175	
Ser	Thr	Asn	Glu	Gln	Leu	Gln	Ile	His	Tyr	Lys	Val	Cys	Tyr	Ala	Arg

	180		185		190										
Val	Leu	Asp	Tyr	Arg	Arg	Lys	Phe	Ile	Glu	Ala	Ala	Gln	Arg	Tyr	Asn
	195						200					205			
Glu	Leu	Ser	Tyr	Lys	Thr	Ile	Val	His	Glu	Ser	Glu	Arg	Leu	Glu	Ala
	210					215					220				
Leu	Lys	His	Ala	Leu	His	Cys	Thr	Ile	Leu	Ala	Ser	Ala	Gly	Gln	Gln
225					230					235				240	
Arg	Ser	Arg	Met	Leu	Ala	Thr	Leu	Phe	Lys	Asp	Glu	Arg	Cys	Gln	Gln
			245						250					255	
Leu	Ala	Ala	Tyr	Gly	Ile	Leu	Glu	Lys	Met	Tyr	Leu	Asp	Arg	Ile	Ile
	260							265					270		
Arg	Gly	Asn	Gln	Leu	Gln	Glu	Phe	Ala	Ala	Met	Leu	Met	Pro	His	Gln
	275						280					285			
Lys	Ala	Thr	Thr	Ala	Asp	Gly	Ser	Ser	Ile	Leu	Asp	Arg	Ala	Val	Ile
	290					295					300				
Glu	His	Asn	Leu	Leu	Ser	Ala	Ser	Lys	Leu	Tyr	Asn	Asn	Ile	Thr	Phe
305					310					315				320	
Glu	Glu	Leu	Gly	Ala	Leu	Leu	Glu	Ile	Pro	Ala	Ala	Lys	Ala	Glu	Lys
			325						330					335	
Ile	Ala	Ser	Gln	Met	Ile	Thr	Glu	Gly	Arg	Met	Asn	Gly	Phe	Ile	Asp
			340					345					350		
Gln	Ile	Asp	Gly	Ile	Val	His	Phe	Glu	Thr	Arg	Glu	Ala	Leu	Pro	Thr
	355						360					365			
Trp	Asp	Lys	Gln	Ile	Gln	Ser	Leu	Cys	Phe	Gln	Val	Asn	Asn	Leu	Leu
	370					375					380				
Glu	Lys	Ile	Ser	Gln	Thr	Ala	Pro	Glu	Trp	Thr	Ala	Gln	Ala	Met	Glu
385					390					395				400	
Ala	Gln	Met	Ala	Gln											
					405										

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 <211> 5907  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 4930

&lt;211&gt; 648

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4930

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 Glu Asp Phe Asn Ile Tyr Gly His Gly Gly Arg Gln Phe Trp Leu Val  
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&lt;210&gt; 4935

&lt;211&gt; 1668

&lt;212&gt; DNA

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&lt;400&gt; 4935

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<211> 337

<212> PRT

<213> Homo sapiens

<400> 4936

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			20					25					30		
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Phe	Asp	Pro	Tyr	Thr	Ser	Val	Glu	Glu	Gly	Asp	Pro	Met	Glu	Phe	
			85					90					95		
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Glu	Gln	Ile	Val	His	Ser	Pro	Gly	Ser	Pro	Asn	Gly	Thr	Leu	Gln	Thr
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His	His	Glu	Lys	Asp	His	Lys	Arg	Asn	His	Ser	Met	Gly	His	Ile	Ser
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		260						265					270		
Pro	Ala	Lys	Thr	Leu	Gly	Thr	Pro	Leu	Cys	Pro	Arg	Met	Glu	Asp	Val
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Pro	Leu	Leu	Glu	Pro	Leu	Ile	Cys	Lys	Lys	Ile	Ala	His	Glu	Arg	Leu
	290					295					300				
Thr	Val	Leu	Ile	Phe	Leu	Glu	Asp	Cys	Ile	Val	Thr	Ala	Cys	Gln	Glu



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<210> 4939

<211> 730

<212> DNA

<213> Homo sapiens

<400> 4939

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<210> 4940

<211> 158

<212> PRT

<213> Homo sapiens

<400> 4940

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 35 40 45  
 Asp Ser Lys Ala Ser Thr Trp Leu Pro Leu Pro Val Thr Ser Ser Ser  
 50 55 60  
 Ala Glu Pro Ser Arg Pro Asn Ser Cys Pro Pro Ala Cys Ser Pro Ala  
 65 70 75 80  
 Ala Ala Ser Ser Phe Ser Phe Glu Ser Gln Pro Cys Pro Ser Ala Pro

				85					90					95					
Ser	Lys	Ala	Ser	Pro	Ala	Pro	Ala	Ala	Leu	Met	Cys	Gly	Thr	Thr	Ser				
			100					105					110						
Pro	Pro	Ile	Ile	Pro	Ala	Ala	Thr	Glu	Pro	Val	Cys	Ala	Ser	Ser	Arg				
		115					120					125							
Ser	Gly	Arg	Pro	Thr	Ala	Thr	Ala	Cys	Ser	Leu	Gln	Pro	Leu	Leu	Asp				
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Val	Leu	Ser	Ala	Ser	Ala	Ser	Ser	Ser	Ser	Val	Ser	Leu	Ala						
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&lt;210&gt; 4941

&lt;211&gt; 1718

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4941

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1140

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<210> 4942

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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		20					25					30			
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val	Pro
		35					40				45				
Val	Arg	Trp	Val	Val	Lys	Val	Val	Lys	Thr	Leu	Leu	Leu	Arg	Met	Gly
	50				55				60						
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu	Leu
65				70				75					80		
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala	Arg
			85					90					95		
Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr	Leu
		100					105					110			
Leu	Ile	Pro	Leu	Leu	Glu	Arg	Gly	Asp	Glu	Lys	His	Arg	Ile	Thr	Ala
	115				120						125				
Thr	Ala	Phe	Phe	Val	Glu	Leu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg	Ile
	130				135						140				
Pro	Glu	Glu	Tyr	Ser	Leu	Gly	Arg	Met	Ala	Glu	Gly	Leu	Ser	His	His
145				150				155					160		
Asp	Pro	Ile	Met	Lys	Val	Leu	Ser	Ile	Arg	Gly	Leu	Val	Ile	Leu	Ala
			165					170					175		
Arg	Arg	Ser	Glu	Lys	Thr	Ala	Lys	Val	Lys	Ala	Leu	Leu	Pro	Ser	Met
		180					185						190		
Val	Lys	Gly	Leu	Lys	Asn	Met	Asp	Gly	Met	Leu	Val	Val	Glu	Ala	Val
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      245              250              255
Val Val Gln Lys Leu Arg Ala Pro Arg Thr Gln Ala Met Glu Glu Gln
      260              265              270
Leu Val Ser Thr Leu Val Pro Leu Leu Leu Thr Met Gln Glu Gly Asn
      275              280              285
Ser Lys Val Ser Gln Lys Cys Val Lys Thr Leu Leu Arg Cys Ser Tyr
      290              295              300
Phe Met Ala Trp Glu Leu Pro Lys Arg Ala Tyr Ser Arg Lys Pro Trp
305              310              315              320
Asp Asn Gln Gln Gln Thr Val Ala Lys Ile Cys Lys Cys Leu Val Asn
      325              330              335
Thr His Arg Asp Ser Ala Phe Ile Phe Leu Ser Gln Ser Leu Glu Tyr
      340              345              350
Ala Lys Asn Ser Arg Ala Ser Leu Arg Lys Cys Ser Val Met Phe Ile
      355              360              365
Gly Ser Leu Val Pro Cys Met Glu Ser Ile Met Thr Glu Asp Arg Leu
      370              375              380
Asn Glu Val Lys Ala Ala Leu Asp Asn Leu Arg His Asp Pro Glu Ala
385              390              395              400
Ser Val Cys Ile Tyr Ala Ala Gln Val Gln Asp His Ile Leu Ala Ser
      405              410              415
Cys Trp Gln Asn Ser Trp Leu Pro His Gly Asn Ser Trp Val Cys Tyr
      420              425              430
Ser Ala Thr Thr His Arg Trp Ser Pro Ser Cys Glu Asn Leu Pro Thr
      435              440              445
Ser His Gln Arg Arg Ser Trp Ile Met Gln Ala Leu Gly Ser Trp Lys
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Met Ser Leu Lys Lys
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&lt;210&gt; 4943

&lt;211&gt; 1020

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4943

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420

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<210> 4944

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4944

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			20					25					30		
Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
		35					40					45			
Tyr	Asp	Trp	Tyr	Pro	Asn	His	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr
	50					55					60				
Leu	Arg	Phe	Leu	Gly	Leu	Tyr	Arg	Asp	Glu	His	Gln	Asp	Phe	Met	Asp
65					70				75					80	
Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
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<210> 4945

<211> 1792

<212> DNA

<213> Homo sapiens

<400> 4945

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 <211> 197  
 <212> PRT  
 <213> Homo sapiens

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 Gln Asn Phe Leu Lys Asp Met Trp Pro Val Cys Leu Val Arg Asp Ala  
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720  
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1920  
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1980  
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2040

aaaaaaaaaa aaaaaaaaaa  
2060

<210> 4948  
<211> 127  
<212> PRT  
<213> Homo sapiens

<400> 4948  
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1 5 10 15  
Met Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met  
20 25 30  
Val Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn  
35 40 45  
Trp Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu  
50 55 60  
Leu Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg  
65 70 75 80  
Phe Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala  
85 90 95  
Lys Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly  
100 105 110  
Ala Ala Val Thr Leu Lys Asn Leu Thr Xaa Leu Asn Gln Arg Arg  
115 120 125

<210> 4949  
<211> 1259  
<212> DNA  
<213> Homo sapiens

<400> 4949  
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120  
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180  
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240  
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300  
ttttgtgtga agacactgaa agtgtgctgc tctccaggaa cctacgggtcc cgactgtctc  
360  
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420  
agcagacagg ggcacgggtc ctgccggtgc cacatggggt accagggccc gctgtgcact  
480  
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540  
tgtgacgagt cctgcaagac gtgctcgggc ctgaccaaca gagactgcgg cgagtgtgaa  
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660

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<210> 4950
<211> 318
<212> PRT
<213> Homo sapiens
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4120

210	215	220
Ala Ala Gln Phe Cys Lys Asn Ala Asn Gly Ser Tyr Thr Cys Glu Glu		
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Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys		240
	245	250
Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys Ala Asp		255
	260	265
Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu		270
	275	280
Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly		285
	290	300
Phe Glu Glu Xaa Gly Arg Cys Leu Cys Ala Ala Gly Arg Gly		315
305	310	

<210> 4951  
 <211> 1835  
 <212> DNA  
 <213> Homo sapiens

<400> 4951  
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 120  
 agcgacgact tccgccctcc ttagggccgt ggtcccgtag ctaccggctg cgtcgccgtg  
 180  
 ggcgacgtgc ccgcttccaa aatggcgggc gcggcggtat ctggtgcgct tggccgggcg  
 240  
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 300  
 ccgcgtgcct tccatgcttc agctgtgggg ctaaggctct cagatgagca gaagcagcag  
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 660  
 aatacccggc tcacacgtgt gctagaagag gagcagaagc tggtagagtt gggccaggcg  
 720  
 gagaagagga agacagacca gttcctgagg gatgcagtgg aaaccagact gagaatgctg  
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 900  
 cagtccactg attttaactg gtacaccgcg cgagccatgc tggctgccat ctacaacaca  
 960  
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 1020

gaaaaccggg ttaatgatgc aatgaacatg ggccacactg ccaagcaggt aaagtccaca  
 1080  
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 1140  
 ctaaaccagc gtcggtgaga ggaaggggta taagctacaa tgcctagaag agaatgagcg  
 1200  
 gacagattga aagagctttg aaaagtataa ggtgccatcc acataacctg gtgttcacga  
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 1835

&lt;210&gt; 4952

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4952

Met	Ala	Ala	Ala	Val	Ser	Gly	Ala	Leu	Gly	Arg	Ala	Gly	Trp	Arg
1			5					10					15	
Leu	Leu	Gln	Leu	Arg	Cys	Leu	Pro	Val	Ala	Arg	Cys	Arg	Gln	Ala
			20					25					30	Leu
Val	Pro	Arg	Ala	Phe	His	Ala	Ser	Ala	Val	Gly	Leu	Arg	Ser	Ser
			35					40					45	Asp
Glu	Gln	Lys	Gln	Gln	Pro	Pro	Asn	Ser	Phe	Ser	Gln	Gln	His	Ser
			50				55				60			Glu
Thr	Gln	Gly	Ala	Glu	Lys	Pro	Asp	Pro	Glu	Ser	Ser	His	Ser	Pro
					70					75				80
Arg	Tyr	Thr	Asp	Gln	Gly	Gly	Glu	Glu	Glu	Glu	Asp	Tyr	Glu	Ser
				85					90					95
Glu	Gln	Leu	Gln	His	Arg	Ile	Leu	Thr	Ala	Ala	Leu	Glu	Phe	Val
			100					105					110	Pro
Ala	His	Gly	Trp	Thr	Ala	Glu	Ala	Ile	Ala	Glu	Gly	Ala	Gln	Ser
			115				120					125		Leu
Gly	Leu	Ser	Ser	Ala	Ala	Ala	Ser	Met	Phe	Gly	Arg	Met	Gly	Ser
			130				135				140			Glu
Leu	Ile	Leu	His	Phe	Val	Thr	Gln	Cys	Asn	Thr	Arg	Leu	Thr	Arg
														Val



```

145          150          155          160
Leu Glu Glu Glu Gln Lys Leu Val Gln Leu Gly Gln Ala Glu Lys Arg
          165          170          175
Lys Thr Asp Gln Phe Leu Arg Asp Ala Val Glu Thr Arg Leu Arg Met
          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met Val
          210          215          220
Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn Trp
225          230          235          240
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
          245          250          255
Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
          290          295          300
Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
305          310          315

```

<210> 4953  
<211> 355  
<212> DNA  
<213> Homo sapiens

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<400> 4953
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120
ggtgccccct ggtggcagct tgaaggaagg acgggcagtg ggtcgcagcc agcgggggacc
180
taccgcaaa aacgcacata aaagctggaa tcagcttggt acagctgcag gtccctctcg
240
tccgatttgg atagaccctc ttgggaccca ctgcaccagg gaaccccaaa tgcagctcag
300
cagcatggga ggagccctgt ctgctggggg tgtctgggat cgtcggagag aggct
355

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<210> 4954  
<211> 114  
<212> PRT  
<213> Homo sapiens

```

<400> 4954
Met Ala Gly Gly Arg Gln Asp Arg Arg Ala Gln Ala Trp Thr Pro Leu
1          5          10          15
Ser Ala Trp Gly Cys Leu Ala Ala Ser Pro Val Leu Gly Ala Gly Ile
          20          25          30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
          35          40          45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

```

```

      50              55              60
Trp Asn Gln Leu Val Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile
65              70              75              80
Asp Pro Leu Gly Thr His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser
      85              90              95
Ser Met Gly Gly Ala Leu Ser Ala Gly Gly Val Trp Asp Arg Arg Arg
      100              105              110
Glu Ala

```

&lt;210&gt; 4955

&lt;211&gt; 364

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4955

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agatctaagg ccctcgggag agatgggaac tgagcacctg ggtcttagac cggaggagca
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aactgcaaga caggggtggcc ggggacacca gcctccgccc ttctgtgaca taaggacaag
120
agctcagcct gcccaggaac aactctgggc aagagatgtg gaaagaaaga gctcangggg
180
gggcacgcat ggcatacctgg ggggacatct gagggcaccc ccaccacta ttcctccctc
240
caaggtggcc tctgagtgtg aaggcagggg gaagcagaca cctgccctc actctccctc
300
cctaccacat agctaccggg tggggggcgt ccctgggatg attcctgagg gcaggatcca
360
gggg
364

```

&lt;210&gt; 4956

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4956

```

Met Gly Thr Glu His Leu Gly Leu Arg Pro Glu Glu Gln Thr Ala Arg
 1              5              10              15
Gln Gly Gly Arg Gly His Gln Pro Pro Phe Cys Asp Ile Arg Thr
      20              25              30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
      35              40              45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
      50              55              60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
      65              70              75              80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
      85              90              95
Ser Tyr Arg Val Gly Gly Val Pro Gly Met Ile Pro Glu Gly Arg Ile
      100              105              110
Gln Gly

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<210> 4957  
 <211> 872  
 <212> DNA  
 <213> Homo sapiens

<400> 4957  
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 120  
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 180  
 aacccacagc acctcctgca gtcctggagg gaaaaggagc agtaacatga agtgtctgaa  
 240  
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 300  
 ttctattttg aaagaatgat gctcaatctg taccttttat gcttcttggt tcttctccat  
 360  
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 420  
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 480  
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 600  
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 720  
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 780  
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 840  
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 872

<210> 4958  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 4958  
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 Pro Pro Pro Pro Ser Arg Ser Gly Ala Pro Pro Gln Pro Pro Ala Thr  
 20 25 30  
 Thr Ala Ile Ala Pro Gln Asp Thr Pro Ser Thr Thr Arg Thr Ala Arg  
 35 40 45  
 Arg Ser Ser  
 50

<210> 4959  
 <211> 449

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4959

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cagtgggttg gggggcttcc atttgcagtt gagggccagg tgtttgggtc cttccatgtg  
120  
gcagggataa agaggagagc tggcatctgg agtcatgata tgtctgagag gcagtgcctc  
180  
cggccaccgt aggatggagg ccagcttcca gccctggctg atgggggaga agcagcgaat  
240  
tctccagatg tggatggca gacctttgga agattcactc ggctccact taaccttgtg  
300  
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360  
gcgtggatga taatttggtt gaaaggagag atggtcacca gtggactcag tttaggaagg  
420  
caciaagggtc aaccctttcc gtttctaga  
449

&lt;210&gt; 4960

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4960

Met	Phe	Asn	Ser	Thr	Gln	Asn	Thr	Trp	Gly	Cys	Gly	Leu	Trp	Ser	His
1				5					10					15	
Lys	Val	Lys	Trp	Arg	Pro	Ser	Glu	Ser	Ser	Lys	Gly	Leu	Pro	Tyr	His
			20					25					30		
Ile	Trp	Arg	Ile	Arg	Cys	Phe	Ser	Pro	Ile	Ser	Gln	Gly	Trp	Lys	Leu
		35					40					45			
Ala	Ser	Ile	Leu	Arg	Trp	Pro	Glu	Ala	Leu	Pro	Leu	Arg	Gln	Ile	Met
	50					55				60					
Thr	Pro	Asp	Ala	Ser	Ser	Pro	Leu	Tyr	Pro	Cys	His	Met	Glu	Gly	Pro
65				70					75					80	
Lys	His	Leu	Ala	Leu	Asn	Cys	Lys	Trp	Lys	Pro	Pro	Gln	Pro	Leu	His
			85					90					95		
Gln	Pro	Pro	Ala	Lys	Glu	Thr	Thr	Thr	Thr	Ile	Cys	Ile	Pro	Ser	Leu
			100					105						110	
Asp	Thr	Arg													
			115												

&lt;210&gt; 4961

&lt;211&gt; 4737

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4961

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tcggccgccc tcacaccct caacgagagc ctgcagcccc tgggggacta tggcgtgggc  
120

tccaagaaca gcaagcgtgc ccgggagaag cgcgacagcc gcaacatgga agtacaggctc  
180  
accaggaga tgcgcaacgt cagtatagcc atgggcagca gtgacgagtg gtctgatgtt  
240  
caagacatta ttgactccac gccagagctg gacatgtgtc cagagacccg cctggaccgc  
300  
acaggaagca gccaaccca gggcatcgtg aacaaagctt tcggcatcaa caccgactcc  
360  
ctgtaccatg agctgtcgac ggcagggtct gaggtcatcg gggatgtgga cgaaggggcc  
420  
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480  
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540  
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600  
gccaaagtca agctggaaaa ccgtatcaag gagctggaag aggaactgaa aagagtgaag  
660  
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720  
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780  
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840  
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900  
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960  
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1140  
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1260  
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1500  
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1920  
gagccagaga cagccacatt gcggcccggg cctctcacag agcacgtctt cactgacca  
1980  
gccccgaccc cgtcctctgg cccccagcct ggcagcgaga acggggccaga gcctgacagc  
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<211> 1069

<212> PRT

<213> Homo sapiens

<400> 4962

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Pro Leu Gly Asp Tyr Gly Val Gly Ser Lys Asn Ser Lys Arg Ala Arg			
35	40	45	
Glu Lys Arg Asp Ser Arg Asn Met Glu Val Gln Val Thr Gln Glu Met			
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Arg Asn Val Ser Ile Gly Met Gly Ser Ser Asp Glu Trp Ser Asp Val			
65	70	75	80
Gln Asp Ile Ile Asp Ser Thr Pro Glu Leu Asp Met Cys Pro Glu Thr			
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Arg Leu Asp Arg Thr Gly Ser Ser Pro Thr Gln Gly Ile Val Asn Lys			
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Ala Phe Gly Ile Asn Thr Asp Ser Leu Tyr His Glu Leu Ser Thr Ala			
115	120	125	
Gly Ser Glu Val Ile Gly Asp Val Asp Glu Gly Ala Asp Leu Leu Gly			
130	135	140	
Glu Phe Ser Gly Met Gly Lys Glu Val Gly Asn Leu Leu Leu Glu Asn			
145	150	155	160
Ser Gln Leu Leu Glu Thr Lys Asn Ala Leu Asn Val Val Lys Asn Asp			
165	170	175	
Leu Ile Ala Lys Val Asp Gln Leu Ser Gly Glu Gln Glu Val Leu Arg			
180	185	190	
Gly Glu Leu Glu Ala Ala Lys Gln Ala Lys Val Lys Leu Glu Asn Arg			
195	200	205	
Ile Lys Glu Leu Glu Glu Glu Leu Lys Arg Val Lys Ser Glu Ala Ile			
210	215	220	
Ile Ala Arg Arg Glu Pro Lys Glu Glu Ala Glu Asp Val Ser Ser Tyr			
225	230	235	240
Leu Cys Thr Glu Ser Asp Lys Ile Pro Met Ala Gln Arg Arg Arg Phe			
245	250	255	
Thr Arg Val Glu Met Ala Arg Val Leu Met Glu Arg Asn Gln Tyr Lys			
260	265	270	
Glu Arg Leu Met Glu Leu Gln Glu Ala Val Arg Trp Thr Glu Met Ile			
275	280	285	
Arg Ala Ser Arg Glu His Pro Ser Val Gln Glu Lys Lys Lys Ser Thr			
290	295	300	
Ile Trp Gln Phe Phe Ser Arg Leu Phe Ser Ser Ser Ser Pro Pro			
305	310	315	320
Pro Ala Lys Arg Pro Tyr Pro Ser Val Asn Ile His Tyr Lys Ser Pro			
325	330	335	
Thr Thr Ala Gly Phe Ser Gln Arg Arg Asn His Ala Met Cys Pro Ile			
340	345	350	
Ser Ala Gly Ser Arg Pro Leu Glu Phe Phe Pro Asp Asp Cys Thr			
355	360	365	
Ser Ser Ala Arg Arg Glu Gln Lys Arg Glu Gln Tyr Arg Gln Val Arg			
370	375	380	
Glu His Val Arg Asn Asp Asp Gly Arg Leu Gln Ala Cys Gly Trp Ser			
385	390	395	400
Leu Pro Ala Lys Tyr Lys Gln Leu Ser Pro Asn Gly Gly Gln Glu Asp			
405	410	415	
Thr Arg Met Lys Asn Val Pro Val Pro Val Tyr Cys Arg Pro Leu Val			
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Glu Lys Asp Pro Thr Met Lys Leu Trp Cys Ala Ala Gly Val Asn Leu			



4131

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&lt;210&gt; 4963

&lt;211&gt; 1575

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4963

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<210> 4964

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4964

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			20					25					30		
Leu	Leu	Gln	Gln	Glu	Leu	Phe	Gln	Lys	Cys	His	Pro	Val	His	Phe	Leu
		35					40					45			
Asn	Ser	Arg	Ala	Leu	Gly	Val	Met	Asp	Lys	Ser	Thr	Ala	Ile	Pro	Lys
	50					55					60				
Ala	Ser	Ser	Ser	Glu	Ser	Leu	Ser	Ala	Lys	Thr	Cys	Ser	Leu	Phe	Leu
65				70					75					80	
Pro	Asn	Tyr	Val	Gln	Asp	Lys	Tyr	Leu	Leu	Gln	Leu	Leu	Arg	Asn	Ala
			85					90						95	
Asp	Asp	Val	Ser	Thr	Trp	Val	Ala	Ala	Glu	Ile	Val	Thr	Ser	His	Thr
		100					105						110		
Ser	Lys	Leu	Gln	Val	Asn	Leu	Leu	Ser	Lys	Phe	Xaa	Leu	Ile	Ala	Lys

	115		120		125
Ser	Cys Tyr Glu Gln Arg	Asn Phe Ala Thr Ala Met	Gln Ile Leu Ser		
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Gly	Leu Glu His Leu Ala Val	Arg Gln Ser Pro Ala Trp	Arg Ile Leu		
145		150		155	160
Pro	Ala Lys Ile Ala Glu Val	Met Glu Glu Leu Lys Ala Val	Glu Val		
	165		170		175
Phe	Leu Lys Ser Asp Ser Leu Cys	Leu Met Glu Gly Arg Arg	Phe Arg		
	180		185		190
Ala	Gln Pro Thr Leu Pro Ser Ala	His Leu Leu Ala Met His	Ile Gln		
	195		200		205
Gln	Leu Glu Thr Gly Gly Phe Thr	Met Thr Asn Gly Ala His	Arg Trp		
	210		215		220
Ser	Lys Leu Arg Asn Ile Ala Lys	Val Val Ser Gln Val His	Ala Phe		
225		230		235	240
Gln	Glu Asn Pro Tyr Thr Phe Ser	Pro Asp Pro Lys Leu Gln	Ser Tyr		
	245		250		255
Leu	Lys Gln Arg Ile Ala Arg Phe	Ser Gly Ala Asp Ile Ser	Thr Leu		
	260		265		270
Ala	Ala Asp Ser Arg Ala Asn Phe	His Gln Val Ser Ser Glu	Lys His		
	275		280		285
Ser	Arg Lys Ile Gln Asp Lys Leu	Arg Arg Met Lys Ala Thr	Phe Gln		
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&lt;210&gt; 4965

&lt;211&gt; 1474

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4965

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&lt;210&gt; 4966

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4966

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Ser	Val	Ser	Ala	Arg	Lys	Ile	Lys	Asp	Asn	Ala	Ala	Asp	Trp	His	Asn
			20					25					30		
Leu	Ile	Leu	Lys	Trp	Glu	Thr	Leu	Asn	Asp	Ala	Gly	Phe	Thr	Thr	Ala
		35					40					45			
Asn	Asn	Ile	Ala	Asn	Leu	Lys	Ile	Ser	Leu	Leu	Asn	Lys	Asp	Lys	Ile
		50				55					60				
Glu	Leu	Asp	Ser	Ser	Ser	Pro	Ala	Ser	Lys	Glu	Asn	Glu	Glu	Lys	Val
65					70				75					80	
Cys	Leu	Glu	Tyr	Asn	Glu	Glu	Leu	Glu	Lys	Leu	Cys	Glu	Glu	Leu	Gln
			85					90						95	
Ala	Thr	Leu	Asp	Gly	Leu	Thr	Lys	Ile	Gln	Val	Lys	Met	Glu	Lys	Leu
		100					105						110		
Ser	Ser	Thr	Thr	Lys	Gly	Ile	Cys	Glu	Leu	Glu	Asn	Tyr	His	Tyr	Gly
		115				120					125				
Glu	Glu	Ser	Lys	Arg	Pro	Pro	Leu	Phe	His	Thr	Trp	Pro	Thr	Thr	His
	130					135				140					
Phe	Tyr	Glu	Val	Ser	His	Lys	Leu	Leu	Glu	Met	Tyr	Arg	Lys	Glu	Leu
145					150				155					160	
Leu	Leu	Lys	Arg	Thr	Val	Ala	Lys	Glu	Leu	Ala	His	Thr	Gly	Asp	Pro

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Asp Leu Thr Leu Ser Tyr Leu Ser Met Trp Leu His Gln Pro Tyr Val
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 <212> DNA  
 <213> Homo sapiens

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240
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420
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<210> 4968  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

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<400> 4968
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Tyr Ser Ser Leu Gln Pro Arg Thr Pro Gly Leu Lys Gln Ser Phe Arg
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35          40          45
Ala Ser Gln
50

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<210> 4969  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 4970

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4970

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Pro Pro Lys Gly Glu Gly Glu Arg Ala Gly Val Glu Arg Thr Gln Lys			
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Pro Pro Ser Leu Asn Pro Pro Pro Leu Pro Ala Pro Trp Pro Pro Cys			
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&lt;210&gt; 4971

&lt;211&gt; 2939

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4971

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&lt;210&gt; 4972

&lt;211&gt; 558

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4972

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Gly	Glu	Glu	Pro	Ser	Val	Gly	Ser	Trp	Phe	Trp	Pro	Glu	Glu	Glu	Thr
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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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&lt;210&gt; 4976

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4976

Met	Lys	Gln	Met	Thr	Phe	Glu	Ala	Gln	Ala	Phe	Leu	Glu	Ala	Val	Gln
1				5				10						15	
Phe	Phe	Arg	Gln	Glu	Lys	Gly	His	Tyr	Gly	Ser	Trp	Glu	Met	Ile	Thr
			20					25					30		
Gly	Asp	Glu	Ile	Gln	Ile	Leu	Ser	Asn	Leu	Val	Met	Glu	Glu	Leu	Leu
			35				40					45			
Pro	Thr	Leu	Gln	Thr	Asp	Leu	Leu	Pro	Lys	Met	Lys	Gly	Lys	Lys	Asn
			50			55					60				
Asp	Arg	Lys	Arg	Thr	Trp	Leu	Gly	Leu	Leu	Glu	Glu	Ala	Tyr	Thr	Leu
65					70					75				80	
Val	Gln	His	Gln	Val	Ser	Glu	Gly	Leu	Ser	Ala	Leu	Lys	Glu	Glu	Cys
			85					90					95		
Arg	Ala	Leu	Thr	Lys	Gly	Leu	Glu	Gly	Thr	Ile	Arg	Ser	Asp	Met	Asp
			100					105					110		
Gln	Ile	Val	Asn	Ser	Lys	Asn	Tyr	Leu	Ile	Gly	Lys	Ile	Lys	Ala	Met
		115				120						125			
Val	Ala	Gln	Pro	Ala	Glu	Lys	Ser	Cys	Leu	Glu	Ser	Val	Gln	Pro	Phe



130		135		140											
Leu	Ala	Ser	Ile	Leu	Glu	Glu	Leu	Met	Gly	Pro	Val	Ser	Ser	Gly	Phe
145				150					155						160
Ser	Glu	Val	Arg	Val	Leu	Phe	Glu	Lys	Glu	Val	Asn	Glu	Val	Ser	Gln
			165						170						175
Asn	Phe	Gln	Thr	Thr	Lys	Asp	Ser	Val	Gln	Leu	Lys	Glu	His	Leu	Asp
			180						185					190	
Arg	Leu	Met	Asn	Leu	Pro	Leu	His	Ser	Val	Lys	Met	Glu	Pro	Cys	Tyr
	195						200					205			
Thr	Lys	Val	Asn	Leu	Leu	His	Glu	Arg	Leu	Gln	Asp	Leu	Lys	Ser	Arg
	210					215					220				
Phe	Arg	Phe	Pro	His	Ile	Asp	Leu	Val	Val	Gln	Arg	Thr	Gln	Asn	Tyr
225					230					235					240
Met	Gln	Glu	Leu	Met	Glu	Asn	Ala	Val	Phe	Thr	Phe	Glu	Gln	Leu	Leu
			245						250					255	
Ser	Pro	His	Leu	Gln	Gly	Glu	Ala	Ser	Lys	Thr	Ala	Phe	Ser	Ile	Glu
			260					265					270		
Lys	Val	Lys	Leu	Arg	Val	Leu	Lys	Gln	Tyr	Asp	Tyr	Asp	Ser	Ser	Thr
	275					280					285				
Ile	Arg	Lys	Lys	Ile	Phe	Gln	Glu	Ala	Leu						
	290					295									

&lt;210&gt; 4977

&lt;211&gt; 3309

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4977

```

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780

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1140  
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1200  
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2400

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 3309

&lt;210&gt; 4978

&lt;211&gt; 792

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4978

Met	Ala	Gln	Glu	Ala	Pro	Gln	Glu	Asp	Thr	Ser	Pro	Met	Ala	Leu	Met
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Asp	Lys	Gly	Glu	Asn	Glu	Leu	Thr	Gly	Ser	Ala	Ser	Glu	Glu	Ser	Gln
			20					25					30		
Glu	Thr	Thr	Thr	Ser	Thr	Ile	Ile	Thr	Thr	Thr	Val	Ile	Thr	Thr	Glu
		35					40					45			
Gln	Ala	Pro	Ala	Leu	Cys	Ser	Val	Ser	Phe	Ser	Asn	Pro	Glu	Gly	Tyr
	50					55					60				
Ile	Asp	Ser	Ser	Asp	Tyr	Pro	Leu	Leu	Pro	Leu	Asn	Asn	Phe	Leu	Glu
65					70					75				80	
Cys	Thr	Tyr	Asn	Val	Thr	Val	Tyr	Thr	Gly	Tyr	Gly	Val	Glu	Leu	Gln
			85					90						95	
Val	Lys	Ser	Val	Asn	Leu	Ser	Asp	Gly	Glu	Leu	Leu	Ser	Ile	Arg	Gly
			100					105					110		
Val	Asp	Gly	Pro	Thr	Leu	Thr	Val	Leu	Ala	Asn	Gln	Thr	Leu	Leu	Val

		115					120					125				
Glu	Gly	Gln	Val	Ile	Arg	Ser	Pro	Thr	Asn	Thr	Ile	Ser	Val	Tyr	Phe	
	130					135					140					
Arg	Thr	Phe	Gln	Asp	Asp	Gly	Leu	Gly	Thr	Phe	Gln	Leu	His	Tyr	Gln	
145					150					155					160	
Ala	Phe	Met	Leu	Ser	Cys	Asn	Phe	Pro	Arg	Arg	Pro	Asp	Ser	Gly	Asp	
				165					170					175		
Val	Thr	Val	Met	Asp	Leu	His	Ser	Gly	Gly	Val	Ala	His	Phe	His	Cys	
			180					185					190			
His	Leu	Gly	Tyr	Glu	Leu	Gln	Gly	Ala	Lys	Met	Leu	Thr	Cys	Ile	Asn	
		195					200					205				
Ala	Ser	Lys	Pro	His	Trp	Ser	Ser	Gln	Glu	Pro	Ile	Cys	Ser	Ala	Pro	
	210					215					220					
Cys	Gly	Gly	Ala	Val	His	Asn	Ala	Thr	Ile	Gly	Arg	Val	Leu	Ser	Pro	
225					230					235					240	
Ser	Tyr	Pro	Glu	Asn	Thr	Asn	Gly	Ser	Gln	Phe	Cys	Ile	Trp	Thr	Ile	
				245					250					255		
Glu	Ala	Pro	Glu	Gly	Gln	Lys	Leu	His	Leu	His	Phe	Glu	Arg	Leu	Leu	
			260					265					270			
Leu	His	Asp	Lys	Asp	Arg	Met	Thr	Val	His	Ser	Gly	Gln	Thr	Asn	Lys	
		275					280					285				
Ser	Ala	Leu	Leu	Tyr	Asp	Ser	Leu	Gln	Thr	Glu	Ser	Val	Pro	Phe	Glu	
	290					295					300					
Gly	Leu	Leu	Ser	Glu	Gly	Asn	Thr	Ile	Arg	Ile	Glu	Phe	Thr	Ser	Asp	
305					310					315					320	
Gln	Ala	Arg	Ala	Ala	Ser	Thr	Phe	Asn	Ile	Arg	Phe	Glu	Ala	Phe	Glu	
				325					330					335		
Lys	Gly	His	Cys	Tyr	Glu	Pro	Tyr	Ile	Gln	Asn	Gly	Asn	Phe	Thr	Thr	
			340					345					350			
Ser	Asp	Pro	Thr	Tyr	Asn	Ile	Gly	Thr	Ile	Val	Glu	Phe	Thr	Cys	Asp	
		355					360					365				
Pro	Gly	His	Ser	Leu	Glu	Gln	Gly	Pro	Ala	Ile	Ile	Glu	Cys	Ile	Asn	
	370					375					380					
Val	Arg	Asp	Pro	Tyr	Trp	Asn	Asp	Thr	Glu	Pro	Leu	Cys	Arg	Ala	Met	
385					390					395					400	
Cys	Gly	Gly	Glu	Leu	Ser	Ala	Val	Ala	Gly	Val	Val	Leu	Ser	Pro	Asn	
				405					410					415		
Trp	Pro	Glu	Pro	Tyr	Val	Glu	Gly	Glu	Asp	Cys	Ile	Trp	Lys	Ile	His	
			420					425					430			
Val	Gly	Glu	Glu	Lys	Arg	Ile	Phe	Leu	Asp	Ile	Gln	Phe	Leu	Asn	Leu	
		435					440					445				
Ser	Asn	Ser	Asp	Ile	Leu	Thr	Ile	Tyr	Asp	Gly	Asp	Glu	Val	Met	Pro	
	450					455					460					
His	Ile	Leu	Gly	Gln	Tyr	Leu	Gly	Asn	Ser	Gly	Pro	Gln	Lys	Leu	Tyr	
465					470					475						

545		550		555		560
Gln Trp Asp Leu Ser	Trp Ser Ser Asp	Pro Pro Phe Cys Glu Lys Ile				
	565	570		575		
Met Tyr Cys Thr Asp	Pro Gly Glu Val Asp	His Ser Thr Arg Leu Ile				
	580	585		590		
Ser Asp Pro Val Leu Leu Val	Gly Thr Thr Ile Gln Tyr Thr Cys Asn					
	595	600		605		
Pro Gly Phe Val Leu Glu Gly	Ser Ser Leu Leu Thr Cys Tyr Ser Arg					
	610	615		620		
Glu Thr Gly Thr Pro Ile Trp Thr	Ser Arg Leu Pro His Cys Val Ser					
	625	630		635		640
Glu Glu Ser Leu Ala Cys Asp	Asn Pro Gly Leu Pro Glu Asn Gly Tyr					
	645	650		655		
Gln Ile Leu Tyr Lys Arg Leu Tyr	Leu Pro Gly Glu Ser Leu Thr Phe					
	660	665		670		
Met Cys Tyr Glu Gly Phe Glu Leu Met	Gly Glu Val Thr Ile Arg Cys					
	675	680		685		
Ile Leu Gly Gln Pro Ser His Trp	Asn Gly Pro Leu Pro Val Cys Lys					
	690	695		700		
Val Asn Gln Asp Ser Phe Glu His Ala	Leu Glu Ala Glu Ala Ala Ala					
	705	710		715		720
Glu Thr Ser Leu Glu Gly Gly Asn Met	Ala Leu Ala Ile Phe Ile Pro					
	725	730		735		
Val Leu Ile Ile Ser Leu Leu Leu Gly	Gly Ala Tyr Ile Tyr Ile Thr					
	740	745		750		
Arg Cys Arg Tyr Tyr Ser Asn Leu Arg	Leu Pro Leu Met Tyr Ser His					
	755	760		765		
Pro Tyr Ser Gln Ile Thr Val Glu Thr	Glu Phe Asp Asn Pro Ile Tyr					
	770	775		780		
Glu Thr Gly Gly Thr Gln Lys Val						
	785	790				

&lt;210&gt; 4979

&lt;211&gt; 1865

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4979

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1860  
ttaca  
1865

&lt;210&gt; 4980

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4980

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 Leu Lys Tyr Ile Gln Ser Ser Asp Ser Ile Ser Ser Asp Glu Glu Glu  
 20 25 30  
 Leu Arg Thr Leu Gly Ser Ser Gly Ser Glu Ser Ser Thr Pro Glu Asn  
 35 40 45  
 Val Gly Pro Pro Phe Leu Met Asp Glu Asn Ser Trp Phe Asn Lys Cys  
 50 55 60  
 Lys Arg Val Lys Gln Lys Tyr Gln Leu Thr Leu Glu Gln Lys Gly Tyr  
 65 70 75 80  
 Leu Glu Glu Leu Leu Arg Leu Arg Glu Asn Gln Leu Ser Glu Ser Val  
 85 90 95  
 Ser Gln Asn Lys Ile Leu Leu Gln Arg Ile Glu Asp Ser Asp Leu Ala  
 100 105 110  
 His Lys Leu Glu Lys Glu Gln Leu Glu Tyr Ile Ile Val Glu Leu Gln  
 115 120 125  
 Asp Gln Leu Thr Val Leu Lys Asn Asn Asp Leu Arg Ser Arg Gln Glu  
 130 135 140  
 Leu Thr Ala His Leu Thr Asn Gln Trp Pro Ser Pro Gly Ala Leu Asp  
 145 150 155 160  
 Val Asn Ala Val Ala Leu Asp Thr Leu Leu Tyr Arg Lys His Asn Lys  
 165 170 175  
 Gln Trp Lys Ser Tyr Gln Ser Leu Asp Gln Leu Ser Ala Glu Val Ser  
 180 185 190  
 Leu Ser Gln Thr Ser Leu Asp Pro Gly Gln Ser Gln Glu Gly Asp Gly  
 195 200 205  
 Lys Gln Asp Thr Leu Asn Val Met Ser Glu Gly Lys Glu Asp Thr Pro  
 210 215 220  
 Ser Leu Leu Gly Leu Cys Gly Ser Leu Thr Ser Val Ala Ser Tyr Lys  
 225 230 235 240  
 Ser Leu Thr Ser Leu Lys Ser Asn Asp Tyr Leu Ala Ser Pro Thr Thr  
 245 250 255  
 Glu Met Thr Ser Pro Gly Leu Thr Pro Ser  
 260 265

&lt;210&gt; 4981

&lt;211&gt; 1902

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4981

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 120  
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 180  
 aagaatggaa gtttgtgagg agacggactc tatgttgccc aggctgttat ggaactcctg  
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cttaggcccc tcatttaaaa acggttatac tataaaatct gcttttcaca ctgggtgata  
420  
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540  
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780  
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&lt;210&gt; 4982



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 <213> Homo sapiens

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 Gln Pro Pro Ser Pro Arg Phe Lys Arg Phe Ser Cys Leu Leu Ser  
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&lt;210&gt; 4984

&lt;211&gt; 256

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4984

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 Gly Ser Phe Leu Ala Arg Ala Lys Phe Ile Pro Leu Ile Thr Val Lys  
 35 40 45  
 Ser Cys Leu Asp Leu Leu Val Asn Trp Leu His Ile Tyr Leu Asn Asn  
 50 55 60  
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 65 70 75 80  
 Phe Tyr Ser Ala Cys Gln Ala Val Phe Tyr Thr Phe Val Phe Arg His  
 85 90 95  
 Lys Gln Leu Leu Ser Gly Asn Leu Lys Glu Gly Leu Gln Tyr Leu Gln  
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 Ser Leu Asn Phe Glu Arg Ile Val Met Ser Gln Leu Asn Pro Leu Lys  
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 Tyr Gln Leu Val Phe Cys Tyr Thr Ile Ile Glu Arg Asn Asn Arg Gln  
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 165 170 175  
 Cys Thr Asn Pro Leu Asp Thr Phe Phe Pro Phe Asp Pro Cys Val Leu  
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 Lys Arg Ser Lys Lys Phe Ile Asp Pro Ile Tyr Gln Val Trp Glu Asp  
 195 200 205  
 Met Ser Ala Glu Glu Leu Gln Glu Phe Lys Lys Pro Met Lys Lys Asp  
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&lt;210&gt; 4986

&lt;211&gt; 1239

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4986

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Met	Asn	Thr	Lys	Asp	Thr	Thr	Glu	Val	Ala	Glu	Asn	Ser	His	His	Leu
		35					40					45			
Lys	Ile	Phe	Leu	Pro	Lys	Lys	Leu	Leu	Glu	Cys	Leu	Pro	Arg	Cys	Pro
		50				55					60				
Leu	Leu	Pro	Pro	Glu	Arg	Leu	Arg	Trp	Asn	Thr	Asn	Glu	Glu	Ile	Ala
65					70					75				80	
Ser	Tyr	Leu	Ile	Thr	Phe	Glu	Lys	His	Asp	Glu	Trp	Leu	Ser	Cys	Ala

4161

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Asp Leu Met Gly Glu Leu Ile Ser Asp Glu Ala Pro Ser Ile Pro Ala		
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Pro Thr Pro Gln Leu Ser Pro Ala Leu Ser Thr Ile Thr Asp Phe Ser		
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Pro Glu Trp Ser Tyr Pro Glu Gly Gly Val Lys Val Leu Ile Thr Gly		
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Pro Trp Thr Glu Ala Ala Glu His Tyr Ser Cys Val Phe Asp His Ile		
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Ala Val Pro Ala Ser Leu Val Gln Pro Gly Val Leu Arg Cys Tyr Cys		
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Pro Ala His Glu Val Gly Leu Val Ser Leu Gln Val Ala Gly Arg Glu		
625	630	635
Gly Pro Leu Ser Ala Ser Val Leu Phe Glu Tyr Arg Ala Arg Arg Phe		
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Leu Ser Leu Pro Ser Thr Gln Leu Asp Trp Leu Ser Leu Asp Asp Asn		
660	665	670
Gln Phe Arg Met Ser Ile Leu Glu Arg Leu Glu Gln Met Glu Lys Arg		
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Met Ala Glu Ile Ala Ala Ala Gly Gln Val Pro Cys Gln Gly Pro Asp		
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Ala Pro Pro Val Gln Asp Glu Gly Gln Gly Pro Gly Phe Glu Ala Arg		
705	710	715
Val Val Val Leu Val Glu Ser Met Ile Pro Arg Ser Thr Trp Lys Gly		
725	730	735
Pro Glu Arg Leu Ala His Gly Ser Pro Phe Arg Gly Met Ser Leu Leu		
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His Leu Ala Ala Ala Gln Gly Tyr Ala Arg Leu Ile Glu Thr Leu Ser		
755	760	765
Gln Trp Arg Ser Val Glu Thr Gly Ser Leu Asp Leu Glu Gln Glu Val		
770	775	780
Asp Pro Leu Asn Val Asp His Phe Ser Cys Thr Pro Leu Met Trp Ala		
785	790	795
Cys Ala Leu Gly His Leu Glu Ala Ala Val Leu Leu Phe Arg Trp Asn		
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Arg Gln Ala Leu Ser Ile Pro Asp Ser Leu Gly Arg Leu Pro Leu Ser		
820	825	830
Val Ala His Ser Arg Gly His Val Arg Leu Ala Arg Cys Leu Glu Glu		
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Leu Gln Arg Gln Glu Pro Ser Val Glu Pro Pro Phe Ala Leu Ser Pro		
850	855	860
Pro Ser Ser Ser Pro Asp Thr Gly Leu Ser Ser Val Ser Ser Pro Ser		
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Glu Leu Ser Asp Gly Thr Phe Ser Val Thr Ser Ala Tyr Ser Ser Ala		
885	890	895
Pro Asp Gly Ser Pro Pro Pro Ala Pro Leu Pro Ala Ser Glu Met Thr		
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Met Glu Asp Met Ala Pro Gly Gln Leu Ser Ser Gly Val Pro Glu Ala		
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Pro Leu Leu Leu Met Asp Tyr Glu Ala Thr Asn Ser Lys Gly Pro Leu		
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Ser Ser Leu Pro Ala Leu Pro Pro Ala Ser Asp Asp Gly Ala Ala Pro		



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 Leu Pro Phe Glu Arg Gly Arg Leu Ala Val Pro Ser Ala Pro Ser Trp  
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 Lys Gln Asp Gln Ala Ala Arg Lys Ile Met Arg Phe Leu Arg Arg Cys  
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&lt;210&gt; 4987

&lt;211&gt; 357

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4987

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 180  
 ccccttggtg aaacgcagtt ccaagaaaac aaagaggaaa tgctgcgaag agccacaagg  
 240  
 actttttctc tgagtcacaa gaagacgaat atacgctgca atgacgcagt gaggggaagaa  
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357

<210> 4988  
<211> 105  
<212> PRT  
<213> Homo sapiens

<400> 4988  
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Phe Pro Leu Cys Phe Leu Gly Thr Ala Phe Pro Gln Gly Glu Gln Arg  
35 40 45  
Pro Leu Glu Ala Lys Gly Leu Ala Thr Gln Gly Ala Ser Leu Pro Leu  
50 55 60  
Leu Pro Thr Val Thr Cys Val Ser Ile Lys Ser Trp Lys Met Glu Cys  
65 70 75 80  
Pro His Gln Gly Asp Gly Val Thr Thr Glu Ala Gly Ser Glu Leu Pro  
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Gln Leu Leu Gln Ala Pro Trp Pro Arg  
100 105

<210> 4989  
<211> 1723  
<212> DNA  
<213> Homo sapiens

<400> 4989  
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120  
aggacaggca cgagtggctg tgcgcgcggg tcgacccttt cacagacat gacctggata  
180  
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240  
tgatgcaccg aggcagccgg gaggaggtag acggcaccca ccacaccctg cgggcactcc  
300  
ggaacaccct gcagccagaa gaagcgcttt caacaagcga cccccgggtc agcccccgtc  
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tctcgcgagc aagcttcctt tttggccagc tccttcagtt cgtcagcagg tccgagaaca  
420  
agtataagcg gatgaacagc aacgagcggg tccgcatcat ctcggggagt ccgctagggg  
480  
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540  
accctgagag cgagctgggc aagaacctca gcctcatccc ctacagcctg gtacgcgcct  
600  
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660  
tgcagaggct gctcaactcg ggaggtgcc tggagttcac catctgcaag tcagatatcg  
720

tcacaagaga tgagttcctc agaaggcaga agacggagac catcatctac tcccagagaga  
 780  
 agaaccccaa cgcgttcgaa tgcattcgccc ctgccaaacat tgaagctgtg gccgccaaga  
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 1080  
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 1140  
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 1560  
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 1723

&lt;210&gt; 4990

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4990

Thr	Ala	Pro	Thr	Thr	Pro	Cys	Gly	His	Ser	Gly	Thr	Pro	Cys	Ser	Gln
1				5					10					15	
Lys	Lys	Arg	Phe	Gln	Gln	Ala	Thr	Pro	Gly	Ser	Ala	Pro	Val	Ser	Arg
			20					25					30		
Glu	Gln	Ala	Ser	Phe	Leu	Ala	Ser	Ser	Phe	Ser	Ser	Ser	Ala	Gly	Pro
		35					40					45			
Arg	Thr	Ser	Ile	Ser	Gly										
50															

&lt;210&gt; 4991

&lt;211&gt; 828

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4991

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 tccaccattg tgggtggagga aggccacgag ggcctcacgc acttctgat gaacgaggtc  
 120  
 atcaagctgc agcagcagat gaaggccaag gacctgcaac gctgcgagct gctggccagg  
 180  
 ttgcggcagc tggaggatga gaagaagcag atgacgctga cgcgcgtgga gctgctaacc  
 240  
 ttccaggagc ggtactacaa gatgaaggaa gagcgggaca gctacaatga cgagctggtc  
 300  
 aagggtgaagg acgacaacta caacttagcc atgcgctacg cacagctcag tgaggagaag  
 360  
 aacatggcgg tcatgaggag ccgagacctc caactcgaga tcgatcagct aaagcaccgg  
 420  
 ttgaataaga tggaggagga atgtaagctg gagagaaatc agtctctaaa actgaagaat  
 480  
 gacattgaaa atcggcccaa gaaggagcag gttctggaac tggagcggga gaatgaaatg  
 540  
 ctgaagacca aaaaccagga gctgcagtcc atcatccagg ccgggaagcg cagcctgcca  
 600  
 gactcagaca aggccatcct ggacatcttg gaacacgacc gcaaggaggc cctggaggag  
 660  
 aggcaggagc tgggtcaacag gatctacaac ctgcaggagg aggcccgccca ggcagaggag  
 720  
 ctgcgagaca agtacctgga ggagaaggag gacctggagc tcaagtgtc gaccctggga  
 780  
 aaggactgtg aaatgtacaa gcaccgcatg aacacggtca tgctgcag  
 828

&lt;210&gt; 4992

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4992

Asp Ile Leu Glu His Asp Arg Lys Glu Ala Leu Glu Asp Arg Gln Glu  
 1 5 10 15  
 Leu Val Asn Arg Ile Tyr Asn Leu Gln Glu Glu Ala Arg Gln Ala Glu  
 20 25 30  
 Glu Leu Arg Asp Lys Tyr Leu Glu Glu Lys Glu Asp Leu Glu Leu Lys  
 35 40 45  
 Cys Ser Thr Leu Gly Lys Asp Cys Glu Met Tyr Lys His Arg Met Asn  
 50 55 60  
 Thr Val Met Leu Gln  
 65

&lt;210&gt; 4993

&lt;211&gt; 837

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4993

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 60  
 gctgcctagc gcgcgggggg cgccccagc cggagctgg ctttgctaca gctgaccact  
 120  
 ccagtcagga gagagagact gagaaggcta tggatcgact agcccgtgga acacagagca  
 180  
 ttcctaataga cagtctgcc cggggtgagg gcacccattc tgaagaggaa ggctttgcca  
 240  
 tggatgagga ggactctgat ggagaactga atacctggga gctgtcagaa gggacaaact  
 300  
 gtccacccaa ggaacagcct ggcgatcttt ttaatgagga ctgggactcg gaggttgaaag  
 360  
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 420  
 aaccttgggt gtgctgtgcc ccacaaggag acatgatcta tgaccccagc tggcaccatc  
 480  
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 660  
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 720  
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 837

<210> 4994  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 4994  
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 35 40 45  
 Thr Asn Cys Pro Pro Lys Glu Gln Pro Gly Asp Leu Phe Asn Glu Asp  
 50 55 60  
 Trp Asp Ser Glu Leu Lys Ala Asp Gln Gly Asn Pro Tyr Asp Ala Asp  
 65 70 75 80  
 Asp Ile Gln Glu Ser Ile Ser Gln Glu Leu Lys Pro Trp Val Cys Cys  
 85 90 95  
 Ala Pro Gln Gly Asp Met Ile Tyr Asp Pro Ser Trp His His Pro Pro  
 100 105 110  
 Pro Leu Ile Pro Tyr Tyr Ser Lys Met Val Phe Glu Thr Gly Gln Phe  
 115 120 125  
 Asp Asp Ala Glu Asp  
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<210> 4995

<211> 1595

<212> DNA

<213> Homo sapiens

<400> 4995

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120  
agcccaggca gatgtgaact cctggcaagg ggtgggcagg tccagtttgga gaagtcgggg  
180  
tggagcccag ggctggccct ggaatgcagt cctcagagcg gctgtgctca taggtcagaa  
240  
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300  
cttgtggaag agaagaccaa ggagtcactg gatgtgagca gactgaccgc ggaaggtggc  
360  
cccctgctgt atgaaggcat cagtctcacc atgaactcca aactcctgaa tggttcccag  
420  
cgggtggtga tggacggcgt aatctctgac cacgagtgtc aggagctgca gagactgacc  
480  
aatgtggcag caacctcagg agatggctac cggggtcaga cctccccaca tactccaat  
540  
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600  
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660  
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720  
gccatcgaag aggtccaggc agagaggaag gatgatagtc atccagtcca cgtggacaac  
780  
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840  
gactacagcg ccactcttta cctaaatggg gacttcgatg gcggaaactt ttatttctact  
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gccatcgccc tgtggttcac cctggaccct cgacacagcg agcgggacag ggtgcaggca  
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1440

ggcccagcca cccccagggg cctccacagg ccgctgcata acagcgatac agtacttaag  
 1500  
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 1560  
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 1595

<210> 4996  
 <211> 217  
 <212> PRT  
 <213> Homo sapiens

<400> 4996  
 Met Lys Glu Ile Glu Thr Leu Val Glu Glu Lys Thr Lys Glu Ser Leu  
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 20 25 30  
 Ile Ser Leu Thr Met Asn Ser Lys Leu Leu Asn Gly Ser Gln Arg Val  
 35 40 45  
 Val Met Asp Gly Val Ile Ser Asp His Glu Cys Gln Glu Leu Gln Arg  
 50 55 60  
 Leu Thr Asn Val Ala Ala Thr Ser Gly Asp Gly Tyr Arg Gly Gln Thr  
 65 70 75 80  
 Ser Pro His Thr Pro Asn Glu Lys Phe Tyr Gly Val Thr Val Phe Lys  
 85 90 95  
 Ala Leu Lys Leu Gly Gln Glu Gly Lys Val Pro Leu Gln Ser Ala His  
 100 105 110  
 Leu Tyr Tyr Asn Val Thr Glu Lys Val Arg Arg Ile Met Glu Ser Tyr  
 115 120 125  
 Phe Arg Leu Asp Thr Pro Leu Tyr Phe Ser Tyr Ser His Leu Val Cys  
 130 135 140  
 Arg Thr Ala Ile Glu Glu Val Gln Ala Glu Arg Lys Asp Asp Ser His  
 145 150 155 160  
 Pro Val His Val Asp Asn Cys Ile Leu Asn Ala Glu Thr Leu Val Cys  
 165 170 175  
 Val Lys Glu Pro Pro Ala Tyr Thr Phe Arg Asp Tyr Ser Ala Ile Leu  
 180 185 190  
 Tyr Leu Asn Gly Asp Phe Asp Gly Gly Asn Phe Tyr Phe Thr Glu Leu  
 195 200 205  
 Asp Ala Lys Thr Val Thr Ala Glu Val  
 210 215

<210> 4997  
 <211> 1888  
 <212> DNA  
 <213> Homo sapiens

<400> 4997  
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 120  
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 180

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240  
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420  
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780  
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840  
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900  
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960  
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1020  
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1140  
gagagcatcc tgcggagatt tttggtgctg aaccagcta aacgctgtac tctcgagcaa  
1200  
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1740  
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1800



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 gctttttaaaa atgtgggaaa ggccaggc  
 1888

<210> 4998  
 <211> 464  
 <212> PRT  
 <213> Homo sapiens

<400> 4998  
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 Thr His Gly Thr Leu Gly Ser Gly Arg Ser Ser Asp Lys Gly Pro Ser  
 20 25 30  
 Trp Ser Ser Arg Ser Leu Gly Ala Arg Cys Arg Asn Ser Ile Ala Ser  
 35 40 45  
 Cys Pro Glu Glu Gln Pro His Val Gly Asn Tyr Arg Leu Leu Arg Thr  
 50 55 60  
 Ile Gly Lys Gly Asn Phe Ala Lys Val Lys Leu Ala Arg His Ile Leu  
 65 70 75 80  
 Thr Gly Arg Glu Val Ala Ile Lys Ile Ile Asp Lys Thr Gln Leu Asn  
 85 90 95  
 Pro Ser Ser Leu Gln Lys Leu Phe Arg Glu Val Arg Ile Met Lys Gly  
 100 105 110  
 Leu Asn His Pro Asn Ile Val Lys Leu Phe Glu Val Ile Glu Thr Glu  
 115 120 125  
 Lys Thr Leu Tyr Leu Val Met Glu Tyr Ala Ser Ala Gly Glu Pro Pro  
 130 135 140  
 Thr Leu Ser Ala Leu Pro Leu Cys His Leu Pro Leu Pro Leu His Leu  
 145 150 155 160  
 Thr Leu Thr Pro Leu Gly Leu Cys Pro Ala Gly Glu Val Phe Asp Tyr  
 165 170 175  
 Leu Val Ser His Gly Arg Met Lys Glu Lys Glu Ala Arg Ala Lys Phe  
 180 185 190  
 Arg Gln Ile Val Ser Ala Val His Tyr Cys His Gln Lys Asn Ile Val  
 195 200 205  
 His Arg Asp Leu Lys Ala Glu Asn Leu Leu Leu Asp Ala Glu Ala Asn  
 210 215 220  
 Ile Lys Ile Ala Asp Phe Gly Phe Ser Asn Glu Phe Thr Leu Gly Ser  
 225 230 235 240  
 Lys Leu Asp Thr Phe Cys Gly Ser Pro Pro Tyr Ala Ala Pro Glu Leu  
 245 250 255  
 Phe Gln Gly Lys Lys Tyr Asp Gly Pro Glu Val Asp Ile Trp Ser Leu  
 260 265 270  
 Gly Val Ile Leu Tyr Thr Leu Val Ser Gly Ser Leu Pro Phe Asp Gly  
 275 280 285  
 His Asn Leu Lys Glu Leu Arg Glu Arg Val Leu Lys Gly Lys Tyr Arg  
 290 295 300  
 Val Pro Phe Tyr Met Ser Thr Asp Cys Glu Ser Ile Leu Arg Arg Phe  
 305 310 315 320  
 Leu Val Leu Asn Pro Ala Lys Arg Cys Thr Leu Glu Gln Ile Met Lys  
 325 330 335  
 Asp Lys Trp Ile Asn Ile Gly Tyr Glu Gly Glu Glu Leu Lys Pro Tyr

			340					345					350				
Thr	Glu	Pro	Glu	Glu	Asp	Phe	Gly	Asp	Thr	Lys	Arg	Ile	Glu	Val	Met		
		355					360					365					
Val	Gly	Met	Gly	Tyr	Thr	Arg	Glu	Glu	Ile	Lys	Glu	Ser	Leu	Thr	Ser		
	370					375					380						
Gln	Lys	Tyr	Asn	Glu	Val	Thr	Ala	Thr	Tyr	Leu	Leu	Leu	Gly	Arg	Lys		
385				390						395					400		
Thr	Glu	Pro	Asp	Glu	His	Gly	Gly	Gly	Gly	Ala	Glu	Gly	Gly	Ala	Ala		
			405					410					415				
Ala	Arg	Pro	Glu	Gly	Glu	Leu	Gln	His	Arg	Gly	Glu	Trp	Glu	Ser	Arg		
		420						425				430					
Ala	Ala	Pro	Leu	Gln	Pro	His	Gly	Gln	Gln	Arg	Pro	Gln	Pro	Gln	Gln		
	435					440					445						
Gly	Arg	Asp	Pro	Arg	Ala	Ala	Glu	Gly	Gln	His	Glu	His	Pro	Arg	Glu		
	450					455					460						

&lt;210&gt; 4999

&lt;211&gt; 1630

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4999

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 gccgcagtcc gcggcggcga cgagggtgagg cgcgtccgcg agagcaacgt cctccacgag  
 120  
 aagtccaagg ggaagacgcg cgaggggagcc gaggacaaga tgaccagcgg cgacgtgctg  
 180  
 tccaaccgca agatgttcta cctgctcaag accgccttcc ccagcgtcca gattaatact  
 240  
 gaggaacacg tggatgcagc tgatcaggag gttatcttgt gggatcataa gattcctgag  
 300  
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 360  
 attgaccacac ttgatgctac acaggaatat acagaggatc ttcgaaagta cgtcactact  
 420  
 atggtgtgtg tggctgtaaa tggtaaacc atgctaggag ttatacataa gccattttcc  
 480  
 gaatatacag cttgggcaat ggtagatggt ggttcaaag tgaaagcccg ctcttcttac  
 540  
 aatgagaaga ccccaaggat cgttgtgtct cgttcccatt cagggatggt caaacaggtc  
 600  
 gctcttcaga cttttggaaa ccagactaca attatcccag ctggtggtgc tggttataaa  
 660  
 gtttttagcac ttttggtatg gcctgataag agtcaagaaa aagctgattt atacatccat  
 720  
 gtgacataca tcaaaaagtg ggatatatgt gctggtaatg ccatcttaaa agccctaggg  
 780  
 gggcatatga ctaccctgag tggatgaagaa atcagttaca ctggttcaga cggcattgaa  
 840  
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 900  
 ctagaaaaga caggacataa atgagcataa ctgattacag ggtacagttc ttcacagctg  
 960

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<211> 307

<212> PRT

<213> Homo sapiens

<400> 5000

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&lt;210&gt; 5002

&lt;211&gt; 335

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5002

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<212> DNA
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&lt;210&gt; 5004

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 <212> PRT  
 <213> Homo sapiens

<400> 5004

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Val	Val														

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&lt;211&gt; 1120

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5005

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&lt;210&gt; 5006

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5006

Met	Ala	Asp	Phe	Asp	Glu	Ile	Tyr	Glu	Glu	Glu	Glu	Asp	Glu	Glu	Arg
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Ala	Leu	Glu	Glu	Gln	Leu	Leu	Lys	Tyr	Ser	Pro	Asp	Pro	Val	Val	Val
		20						25					30		
Arg	Gly	Ser	Gly	His	Val	Thr	Val	Phe	Gly	Leu	Ser	Asn	Lys	Phe	Glu
	35					40						45			
Ser	Glu	Phe	Pro	Ser	Ser	Leu	Thr	Gly	Lys	Val	Ala	Pro	Glu	Glu	Phe
	50					55					60				
Lys	Ala	Ser	Ile	Asn	Arg	Val	Asn	Ser	Cys	Leu	Lys	Lys	Asn	Leu	Pro
65				70					75					80	
Val	Asn	Val	Arg	Trp	Leu	Leu	Cys	Gly	Cys	Leu	Cys	Cys	Cys	Cys	Thr
			85					90						95	
Leu	Gly	Cys	Ser	Met	Trp	Pro	Val	Ile	Cys	Leu	Ser	Lys	Arg	Thr	Arg
			100					105					110		
Arg	Ser	Ile	Glu	Lys	Leu	Leu	Glu	Trp	Glu	Asn	Asn	Arg	Leu	Tyr	His
		115					120					125			
Lys	Leu	Cys	Leu	His	Trp	Arg	Leu	Ser	Lys	Arg	Lys	Cys	Glu	Thr	Asn
	130					135					140				
Asn	Met	Met	Glu	Tyr	Val	Ile	Leu	Ile	Glu	Phe	Leu	Pro	Lys	Thr	Pro
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Ile	Phe	Arg	Pro	Asp											

<210> 5007  
<211> 2165  
<212> DNA  
<213> Homo sapiens

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 1980  
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&lt;210&gt; 5008

&lt;211&gt; 487

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5008

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Gly	Asn	Ser	Tyr	Ala	Ser	Thr	Pro	Glu	Leu	Arg	Arg	Thr	Arg	Leu	Glu
			20					25					30		
Ser	Met	Ala	Lys	Ile	His	Ala	Arg	Asn	Gly	Asp	Leu	Ser	Glu	Ala	Ala
		35					40				45				
Met	Cys	Tyr	Ile	His	Ile	Ala	Ala	Leu	Ile	Ala	Glu	Tyr	Leu	Lys	Arg
	50					55					60				
Lys	Gly	Met	Phe	Ser	Met	Gly	Trp	Pro	Ala	Val	Leu	Ser	Ile	Thr	Pro
65					70					75					80
Asn	Ile	Lys	Glu	Glu	Gly	Ala	Met	Lys	Glu	Asp	Ser	Gly	Met	Gln	Asp
			85						90					95	
Thr	Pro	Tyr	Asn	Glu	Asn	Ile	Leu	Val	Glu	Gln	Leu	Tyr	Met	Cys	Val
			100					105					110		
Glu	Phe	Leu	Trp	Lys	Ser	Glu	Arg	Tyr	Glu	Xaa	Ser	Leu	Leu	Met	Ser
		115					120					125			
Thr	Ser	Pro	Ser	Leu	Leu	Ser	Leu	Arg	Asn	Asn	Glu	Thr	Ser	Lys	Asn
	130					135					140				
Ser	Asp	Leu	Tyr	Tyr	Asp	Ile	His	Arg	Ser	Tyr	Leu	Lys	Val	Ala	Glu
145					150					155				160	
Val	Val	Asn	Ser	Glu	Ala	Ala	Val	Trp	Ser	Leu	Leu	Ser	Cys	Gly	Ile

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 180 185 190  
 Lys Glu Pro Lys Leu Thr Gly Leu Ser Glu Ile Ser Gln Arg Leu Leu  
 195 200 205  
 Lys Leu Tyr Ala Asp Lys Phe Gly Ala Asp Asn Val Lys Ile Ile Gln  
 210 215 220  
 Asp Ser Asn Lys Val Asn Pro Lys Asp Leu Asp Pro Lys Tyr Ala Tyr  
 225 230 235 240  
 Ile Gln Val Thr Tyr Val Thr Pro Phe Phe Glu Glu Lys Glu Ile Glu  
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 260 265 270  
 Phe Glu Thr Pro Phe Thr Leu Ser Gly Lys Lys His Gly Gly Val Ala  
 275 280 285  
 Glu Gln Cys Lys Arg Arg Thr Ile Leu Thr Thr Ser His Leu Phe Pro  
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 Tyr Val Lys Lys Arg Ile Gln Val Ile Ser Gln Ser Ser Thr Glu Leu  
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 325 330 335  
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 340 345 350  
 Leu Lys Leu Gln Gly Ser Val Ser Val Lys Val Asn Ala Gly Pro Met  
 355 360 365  
 Ala Tyr Ala Arg Ala Phe Leu Glu Glu Thr Asn Ala Lys Lys Tyr Pro  
 370 375 380  
 Asp Asn Gln Val Lys Leu Leu Lys Glu Ile Phe Arg Gln Phe Ala Asp  
 385 390 395 400  
 Ala Cys Gly Gln Ala Leu Asp Val Asn Glu Arg Leu Ile Lys Glu Asp  
 405 410 415  
 Gln Leu Glu Tyr Gln Glu Glu Leu Arg Ser His Tyr Lys Asp Met Leu  
 420 425 430  
 Ser Glu Leu Ser Thr Val Met Asn Glu Gln Leu Cys Arg Gly Pro Cys  
 435 440 445  
 Leu Tyr Ser Phe Cys Ser Ser Val Ser Ser Ile Ser Leu Ser Thr Val  
 450 455 460  
 Ser Lys Ser Asp Tyr Gly Gln Gly Arg Pro Val Lys Ala Arg Ser Gly  
 465 470 475 480  
 Pro Asn Leu His Ser Ser Asn  
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&lt;210&gt; 5009

&lt;211&gt; 426

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5009

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gcagaagatt aggagctaga tcaagcaaga ctgggggctg cagggtgtagg aagtgaatca  
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<210> 5010

<211> 119

<212> PRT

<213> Homo sapiens

<400> 5010

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Ser	Tyr	Ala	Cys	Phe	Phe	Phe	Leu	Ser	Pro	Ser	Leu	Leu	Phe	Leu	Pro
			20					25					30		
Asn	Leu	Pro	Gly	Arg	Val	His	Gln	Phe	Phe	Ile	Ser	Pro	Leu	Phe	Ile
		35					40					45			
Leu	Ser	Phe	Glu	Val	Ile	Leu	Ile	His	Phe	Leu	His	Leu	Gln	Pro	Pro
	50					55					60				
Val	Leu	Leu	Asp	Leu	Ala	Pro	Asn	Leu	Leu	Leu	Pro	Phe	Gly	Thr	Glu
65					70					75				80	
Glu	Lys	Leu	Leu	Ser	Ser	Pro	Cys	Phe	Ala	Asp	Ile	Ser	Lys	Gly	Lys
			85						90					95	
Glu	Ser	Thr	Gly	Pro	Phe	Ile	Ser	Cys	Pro	Arg	Pro	Ser	Gln	Gly	Ala
			100					105						110	
Val	Ile	Met	Pro	Lys	Pro	Tyr									
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<210> 5011

<211> 3431

<212> DNA

<213> Homo sapiens

<400> 5011

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 420



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2040

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3431

&lt;210&gt; 5012

&lt;211&gt; 950

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5012

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Ile Ile Val Asn Cys Val Glu Glu Lys Pro Lys Glu Cys Asn Gly Val
 20          25          30
Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe
 35          40          45
Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His
 50          55          60
Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala
 65          70          75          80
Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg
 85          90          95
Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Val Lys Met Asn
100         105         110
Gln Gln Arg Ser Arg Arg Phe Arg Ala Ile Lys Glu Gly Met Glu Ala
115         120         125
Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
130         135         140
Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile
145         150         155         160
Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr
165         170         175
Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr
180         185         190
Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile
195         200         205
Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn
210         215         220
Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly
225         230         235         240
Leu Ala Thr His Glu Pro Asn Phe Thr Ile Ile Arg Glu Glu Phe Lys
245         250         255
Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu
260         265         270
Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp
275         280         285
Glu Leu Ala Asp Ser Leu Pro Cys Ala Glu Gly Glu Phe Ile Phe Leu
290         295         300
Arg Leu Asn Val Leu Arg Glu Tyr Leu Glu Arg Glu Leu Thr Met Ala
305         310         315         320
Ser Leu Pro Phe Thr Phe Asp Val Glu Arg Ser Ile Asp Asp Trp Val
325         330         335
Phe Met Cys Phe Phe Val Gly Asn Asp Phe Leu Pro His Leu Pro Ser
340         345         350
Leu Glu Ile Arg Glu Asn Ala Ile Asp Arg Leu Val Asn Ile Tyr Lys
355         360         365
Asn Val Val His Lys Thr Gly Gly Tyr Leu Thr Glu Ser Gly Tyr Val
370         375         380
Asn Leu Gln Arg Val Gln Met Ile Met Leu Ala Val Gly Glu Val Glu
385         390         395         400
Asp Ser Ile Phe Lys Lys Arg Lys Asp Asp Glu Asp Ser Phe Arg Arg
405         410         415
Arg Gln Lys Glu Lys Arg Lys Arg Met Lys Arg Asp Gln Pro Ala Phe

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 465 470 475 480  
 Thr Ser Asp Gly Ser Pro Ser Pro Leu Gly Gly Ile Lys Arg Lys Ala  
 485 490 495  
 Glu Asp Ser Asp Ser Glu Pro Glu Pro Glu Asp Asn Val Arg Leu Trp  
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 Glu Ala Gly Trp Lys Gln Arg Tyr Tyr Lys Asn Lys Phe Asp Val Asp  
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 Ala Ala Asp Glu Lys Phe Arg Arg Lys Val Val Gln Ser Tyr Val Glu  
 530 535 540  
 Gly Leu Cys Trp Val Leu Arg Tyr Tyr Tyr Gln Gly Cys Ala Ser Trp  
 545 550 555 560  
 Lys Trp Tyr Tyr Pro Phe His Tyr Ala Pro Phe Ala Ser Asp Phe Glu  
 565 570 575  
 Gly Ile Ala Asp Met Pro Ser Asp Phe Glu Lys Gly Thr Lys Pro Phe  
 580 585 590  
 Lys Pro Leu Glu Gln Leu Met Gly Val Phe Pro Ala Ala Ser Gly Asn  
 595 600 605  
 Phe Leu Pro Pro Ser Trp Arg Lys Leu Met Ser Asp Pro Asp Ser Ser  
 610 615 620  
 Ile Ile Asp Phe Tyr Pro Glu Asp Phe Ala Ile Asp Leu Asn Gly Lys  
 625 630 635 640  
 Lys Tyr Ala Trp Gln Gly Val Ala Leu Leu Pro Phe Val Asp Glu Arg  
 645 650 655  
 Arg Leu Arg Ala Ala Leu Glu Glu Val Tyr Pro Asp Leu Thr Pro Glu  
 660 665 670  
 Glu Thr Arg Arg Asn Ser Leu Gly Gly Asp Val Leu Phe Val Gly Lys  
 675 680 685  
 His His Pro Leu His Asp Phe Ile Leu Glu Leu Tyr Gln Thr Gly Ser  
 690 695 700  
 Thr Glu Pro Val Glu Val Pro Pro Glu Leu Cys His Gly Ile Gln Gly  
 705 710 715 720  
 Lys Phe Ser Leu Asp Glu Glu Ala Ile Leu Pro Asp Gln Ile Val Cys  
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&lt;211&gt; 675

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5014

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Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
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&lt;211&gt; 1360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5015

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&lt;211&gt; 284

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5016

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&lt;210&gt; 5017

&lt;211&gt; 785

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5017

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 Lys Thr Leu Leu Ser Arg Ile Ala Glu Asn Leu Pro Lys Gln Leu Ala  
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 Phe Ile Ser Pro Glu Lys Tyr Asp Ile Lys Cys Ala Val Ser Glu Ala  
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 Val Thr Ser Gly Met Val Lys Asp Pro Pro Asp Val Leu Asp Arg Gln  
 245 250 255  
 Lys Cys Leu Asp Ala Leu Ala Ala Leu Arg His Ala Lys Trp Phe Gln  
 260 265 270  
 Ala Arg Ala Asn Gly Leu Gln Ser Cys Val Ile Ile Ile Arg Ile Leu

275	280	285
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Gln Ser Pro Gly Asp Ala Leu Arg Arg Val Phe Glu Cys Ile Ser Ser		
325	330	335
Gly Ile Ile Leu Lys Gly Ser Pro Gly Leu Leu Asp Pro Cys Glu Lys		
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Asp Pro Phe Asp Thr Leu Ala Thr Met Thr Asp Gln Gln Arg Glu Asp		
355	360	365
Ile Thr Ser Ser Ala Gln Phe Ala Leu Arg Leu Leu Ala Phe Arg Gln		
370	375	380
Ile His Lys Val Leu Gly Met Asp Pro Leu Pro Gln Met Ser Gln Arg		
385	390	395
Phe Asn Ile His Asn Asn Arg Lys Arg Arg Arg Asp Ser Asp Gly Val		
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Phe		

&lt;210&gt; 5021

&lt;211&gt; 494

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5021

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&lt;210&gt; 5022

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5022

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Gly Asn Ser	Ser Cys Tyr Gly Val Leu Pro Thr	Glu Glu Pro	Val Tyr
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65	70	75	80
Asn Ile His	Gln Ser Leu Gln Asn Ile Thr Glu Asn Gln	Leu Val Gln	
85	90	95	
Pro Thr Ile	Leu Gln Gln Lys Gly Gly Lys Gly Arg	Lys Lys Leu Arg	
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Leu Phe Glu	Tyr Leu His Glu Ser Leu Cys Asn	Pro	
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&lt;210&gt; 5023

&lt;211&gt; 3482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5023

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&lt;210&gt; 5024

&lt;211&gt; 323

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5024

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Ser	Glu	Ser	Phe	Leu	Pro	Ser	Glu	Gly	Ala	Ser	Ser	Asp	Pro	Val	Thr
			35				40					45			
Leu	Arg	Arg	Arg	Met	Leu	Ala	Ala	Ala	Arg	Asn	Gly	Gly	Phe	Arg	Ser
			50			55				60					
Ser	Arg	Pro	Pro	Ser	Ala	Pro	Leu	Pro	Ser	Ser	Ala	Ala	Ser	Cys	Ala
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Gly	Lys	Ala	Gly	Leu	Thr	Ala	Leu	Pro	Leu	Tyr	Lys	Ala	Cys	Gly	Leu
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Gly Met Ile Ser Ser Gly Val Asp Trp Thr Ala Trp Gly Gly Gly Arg		
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Pro Ser Gly Lys Ser Val Gly Glu Ala His Ser Val Ser Pro Pro Pro		
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Arg Arg Gly Val Thr Ser Val Ile Lys Leu Leu Ser Leu Leu Trp Lys		
210	215	220
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225	230	235
Gln Gln Gly Ile Leu Glu Lys Glu Leu Leu Val Arg Tyr Leu Glu Gln		
245	250	255
Arg Arg Gly Lys Ser Arg Ala Ile Gly Cys Asp Glu Val Thr Pro Phe		
260	265	270
Cys Pro Thr Thr Ser Gly Thr Asp Phe Pro Ser Leu Gln Ser Lys Ala		
275	280	285
Gly Leu Ile Ser Val Asn Ser Gly Ala Pro Ala Ser His Glu Cys Ala		
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&lt;210&gt; 5025

&lt;211&gt; 2596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5025

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<212> PRT  
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Arg Leu Asp Asn Arg Gly Ala Thr Lys Ile Leu Ala Asp Trp Trp Ala  
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Tyr Lys Asp Ala Phe Met Lys Ala Asn Pro Gly Tyr Lys Trp Cys Pro  
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Arg Asn Phe Gly Pro Ser His Leu Thr Leu Gln Glu Thr Cys Gln Ala  
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&lt;210&gt; 5030

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5030

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Val	Ile	Leu	Ile	Phe	Cys	Leu	Met	Thr	Leu	Ile	Gly	Asn	Leu	Phe	Ile
		35					40					45			
Ile	Ile	Leu	Thr	Tyr	Leu	Asp	Ser	His	Leu	His	Thr	Pro	Leu	Tyr	Phe
	50					55					60				
Phe	Leu	Ser	Asn	Leu	Ser	Phe	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Ser	Ser
65					70					75				80	
Ile	Pro	Gln	Leu	Leu	Val	Ser	Leu	Trp	Gly	Val	Glu	Lys	Thr	Ile	Ser
				85					90					95	
Tyr	Ala	Gly	Cys	Met	Val	Gln	Leu	Tyr	Phe	Phe	Leu	Thr	Leu	Gly	Thr
		100						105					110		
Thr	Glu	Cys	Val	Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Ala	Ala
		115					120					125			
Val	Cys	Arg	Pro	Leu	His	Tyr	Thr	Val	Leu	Met	His	Ser	Arg	Phe	Cys
		130				135					140				
His	Leu	Leu	Ala	Val	Ala	Ser	Trp	Val	Ser	Gly	Phe	Thr	Asn	Pro	Ala
145					150					155				160	
Leu	His	Ser	Ser	Phe	Thr	Phe	Trp	Val	Pro	Leu	Cys	Gly	His	Arg	Gln
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 <212> DNA  
 <213> Homo sapiens

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<210> 5032  
 <211> 158  
 <212> PRT  
 <213> Homo sapiens

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 Lys Arg Arg Ala Val Asp Trp His Ala Leu Glu Arg Pro Lys Gly Cys  
 35 40 45  
 Met Gly Val Leu Ala Arg Glu Ala Pro His Leu Glu Lys Gln Pro Ala  
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 Ala Gly Pro Gln Arg Val Leu Pro Gly Glu Arg Glu Glu Arg Pro Pro  
 65 70 75 80  
 Thr Leu Ser Ala Ser Phe Arg Thr Met Ala Glu Phe Met Asp Tyr Thr  
 85 90 95  
 Ser Ser Gln Cys Gly Lys Tyr Tyr Ser Ser Val Pro Glu Glu Gly Gly  
 100 105 110  
 Ala Thr His Val Tyr Arg Tyr His Arg Gly Glu Ser Lys Leu His Met  
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<210> 5033  
 <211> 2888

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5033

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&lt;210&gt; 5034

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5034

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 His Phe Tyr Arg Pro Pro Arg Cys Ser His Cys Ser Val Cys Asp Asn  
 35 40 45  
 Cys Val Glu Val Thr Gly Lys Phe Arg Gly Gly Val Asn Pro Phe Thr  
 50 55 60  
 Arg Gly Cys Cys Gly Asn Val Glu His Val Leu Cys Ser Pro Leu Ala  
 65 70 75 80  
 Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu  
 85 90 95  
 Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu  
 100 105 110  
 Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser  
 115 120 125  
 Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu  
 130 135 140  
 Gly Pro Pro Leu Pro Pro Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp  
 145 150 155 160  
 Leu Gln Thr Pro Arg Pro Gly Ser Ala Glu Ser Ala Leu Ser Val Gln  
 165 170 175  
 Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe  
 180 185 190  
 Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro  
 195 200 205  
 Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp  
 210 215 220  
 Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly  
 225 230 235 240  
 Leu His Ala Ala Tyr Pro Pro Ser Pro Pro Leu Ser Ala Ser Asp Ala  
 245 250 255  
 Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg  
 260 265 270  
 Gly Gly Asp His Val Ala Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro  
 275 280 285  
 Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg  
 290 295 300  
 Asn Gly Ser Leu Ser Tyr Asp Ser Leu Leu Asn Pro Gly Ser Pro Gly  
 305 310 315 320  
 Gly His Ala Cys Pro Ala His Pro Ala Val Gly Val Ala Gly Tyr His  
 325 330 335  
 Ser Pro Tyr Leu His Pro Gly Ala Thr Gly Asp Pro Pro Arg Pro Leu  
 340 345 350  
 Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser  
 355 360 365  
 Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln  
 370 375 380  
 Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala  
 385 390 395 400  
 Asp Ser Leu Phe Gly Asp Ser Gly Val Tyr Asp Ala Pro Ser Ser Tyr  
 405 410 415  
 Ser Leu Gln Gln Ala Ser Val Leu Ser Glu Gly Pro Arg Gly Pro Ala

420 425 430  
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 Gly Ala Arg Asn Pro Ala Leu Gln Thr Ser Leu Ser Ser Leu Ser Ser  
 450 455 460  
 Ser Val Ser Arg Ala Pro Arg Thr Ser Ser Ser Ser Leu Gln Ala Asp  
 465 470 475 480  
 Gln Ala Ser Ser Asn Ala Pro Gly Ala Pro Ala Gln Gln Trp Leu Thr  
 485 490 495  
 Gln Val Thr Cys Thr Pro Gly Pro Ala Leu Pro Ala Arg His Ser Pro  
 500 505 510  
 Leu Thr Ile Leu Arg Gly Pro Gln Ser Cys Arg Leu His Pro His Gly  
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 Pro Pro Arg Ala Thr Ala Leu Ala Asp Arg Ala Glu Gly Pro Pro Ser  
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 Ala Glu Asp Ser Pro Lys  
 545 550

&lt;210&gt; 5035

&lt;211&gt; 2002

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5035

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&lt;210&gt; 5036

&lt;211&gt; 384

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5036

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Asp	Ala	Gly	Ile	Phe	Phe	Thr	Arg	Ala	Val	Gln	Phe	Thr	Glu	Glu	Lys
			20					25					30		
Phe	Gly	Gln	Ala	Glu	Lys	Thr	Glu	Leu	Asp	Ala	His	Phe	Glu	Asn	Leu
		35					40					45			
Leu	Ala	Arg	Ala	Asp	Ser	Thr	Lys	Asn	Trp	Thr	Glu	Lys	Ile	Leu	Arg
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Gln	Thr	Glu	Val	Leu	Leu	Gln	Pro	Asn	Pro	Ser	Ala	Arg	Val	Glu	Glu

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Phe	Leu	Tyr	Glu	Lys	Leu	Asp	Arg	Lys	Val	Pro	Ser	Arg	Val	Thr	Asn
				85					90					95	
Gly	Glu	Leu	Leu	Ala	Gln	Tyr	Met	Ala	Asp	Ala	Ala	Ser	Glu	Leu	Gly
			100					105					110		
Pro	Thr	Thr	Pro	Tyr	Gly	Lys	Thr	Leu	Ile	Lys	Val	Ala	Glu	Ala	Glu
		115					120					125			
Lys	Gln	Leu	Gly	Ala	Ala	Glu	Arg	Asp	Phe	Ile	His	Thr	Ala	Ser	Ile
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Ser	Phe	Leu	Thr	Pro	Leu	Arg	Asn	Phe	Leu	Glu	Gly	Asp	Trp	Lys	Thr
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Ile	Ser	Lys	Glu	Ser	Arg	Leu	Leu	Gln	Asn	Arg	Arg	Leu	Asp	Leu	Asp
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Ala	Cys	Lys	Ala	Arg	Leu	Lys	Lys	Ala	Lys	Ala	Ala	Glu	Ala	Lys	Ala
			180					185					190		
Thr	Leu	Trp	Asn	Asp	Glu	Val	Asp	Lys	Ala	Glu	Gln	Glu	Leu	Arg	Val
	195						200					205			
Ala	Gln	Thr	Glu	Phe	Asp	Arg	Gln	Ala	Glu	Val	Thr	Arg	Leu	Leu	Leu
	210					215					220				
Glu	Gly	Ile	Ser	Ser	Thr	His	Val	Asn	His	Leu	Arg	Cys	Leu	His	Glu
225					230					235					240
Phe	Val	Lys	Ser	Gln	Thr	Thr	Tyr	Tyr	Ala	Gln	Cys	Tyr	Arg	His	Met
				245					250					255	
Leu	Asp	Leu	Gln	Lys	Gln	Leu	Gly	Ser	Ser	Gln	Gly	Ala	Ile	Ser	Arg
			260					265					270		
His	Leu	Arg	Gly	His	His	Arg	Ala	Arg	Leu	Pro	Pro	Leu	Ser	Ser	Thr
	275						280					285			
Ser	Pro	Thr	Thr	Ala	Ala	Ala	Thr	Met	Pro	Val	Val	Pro	Ser	Val	Ala
	290					295					300				
Ser	Leu	Ala	Pro	Pro	Gly	Glu	Ala	Ser	Leu	Cys	Leu	Glu	Glu	Val	Ala
305					310					315					320
Pro	Pro	Ala	Ser	Gly	Thr	Arg	Lys	Ala	Arg	Val	Leu	Tyr	Asp	Tyr	Glu
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Ala	Ala	Asp	Ser	Ser	Glu	Leu	Ala	Leu	Leu	Ala	Asp	Glu	Leu	Ile	Thr
			340					345					350		
Val	Tyr	Ser	Leu	Pro	Gly	Met	Asp	Pro	Asp	Trp	Leu	Ile	Gly	Glu	Arg
		355					360						365		
Gly	Asn	Lys	Lys	Gly	Lys	Val	Pro	Val	Thr	Tyr	Leu	Glu	Leu	Leu	Ser
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&lt;210&gt; 5037

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5037

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900  
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<212> PRT

<213> Homo sapiens

<400> 5038

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&lt;210&gt; 5039

&lt;211&gt; 3059

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5039

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&lt;210&gt; 5040

&lt;211&gt; 616

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5040

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Lys Val Arg Gln Cys Leu Gln Glu Arg Arg Thr Val Pro Ile Leu Phe  
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Ala Ser Thr Val Arg Arg His Pro Asp Lys Thr Ala Leu Ile Phe Glu  
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Gly Thr Asp Thr His Trp Thr Phe Arg Gln Leu Asp Glu Tyr Ser Ser  
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BNSDOCID: &lt;WO 0058473A2 | &gt;

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&lt;210&gt; 5041

&lt;211&gt; 2461

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5041

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&lt;210&gt; 5042

&lt;211&gt; 686

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5042

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50	55	60	
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Tyr Val Ser Leu	Val Arg Glu Thr	Gln Val Leu Gly	Lys Glu Glu Leu
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His Arg Ile Leu	Val Val Asp Trp	Asp Val His His	Gly Gln Gly Ile
180	185	190	
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Arg Tyr Glu His	Gly Arg Phe Trp	Pro Phe Leu Arg	Glu Ser Asp Ala
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<211> 1824
<212> DNA
<213> Homo sapiens
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4225

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&lt;210&gt; 5044

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5044

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Arg Arg Asn Val Arg Lys Gly Tyr Lys Pro Leu Ser Lys Gln Lys Ser			
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130	135	140	
Gln Leu His Gln Lys Leu Thr Glu Thr Gln Gly Glu Leu Lys Asp Leu			
145	150	155	160
Thr Gln Lys Val Glu Leu Leu Glu Lys Phe Arg Asp Asn Cys Leu Ala			
165	170	175	
Ile Leu Glu Ser Lys Gly Leu Asp Pro Ala Leu Gly Ser Glu Thr Leu			
180	185	190	
Ala Ser Arg Gln Glu Ser Thr Thr Asp His Met Asp Ser Met Leu Leu			
195	200	205	
Leu Glu Thr Leu Gln Glu Glu Lys Leu Phe Asn Glu Thr Ala Lys			
210	215	220	
Lys Gln Met Glu Glu Leu Gln Ala Leu Lys Val Lys Leu Glu Met Lys			
225	230	235	240
Glu Glu Arg Val Arg Phe Leu Glu Gln Gln Thr Leu Cys Asn Asn Gln			
245	250	255	
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260	265	270	

Met

&lt;210&gt; 5045

&lt;211&gt; 462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5045

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<213> Homo sapiens

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35 40 45  
Asp Met Val Ala Cys Cys Leu Phe Ser Cys Ser Ser Lys His Tyr Pro  
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&lt;210&gt; 5048

&lt;211&gt; 429

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5048

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&lt;210&gt; 5050

&lt;211&gt; 619

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5050

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4234



610

615

&lt;210&gt; 5051

&lt;211&gt; 4125

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5051

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&lt;210&gt; 5052

&lt;211&gt; 433

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5052

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			20					25					30		
Glu	Ser	Gly	Asp	Glu	Phe	Thr	Tyr	Gly	Asp	Val	Pro	Val	Glu	Asn	Gly
		35					40				45				
Met	Ala	Pro	Phe	Phe	Glu	Met	Lys	Leu	Lys	His	Tyr	Lys	Ile	Phe	Glu
	50					55					60				
Gly	Met	Pro	Val	Thr	Phe	Thr	Cys	Arg	Val	Ala	Gly	Asn	Pro	Lys	Pro

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Lys	Ile	Tyr	Trp	Phe	Lys	Asp	Gly	Lys	Gln	Ile	Ser	Pro	Lys	Ser	Asp
				85					90					95	
His	Tyr	Thr	Ile	Gln	Arg	Asp	Leu	Asp	Gly	Thr	Cys	Ser	Leu	His	Thr
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Thr	Ala	Ser	Thr	Leu	Asp	Asp	Asp	Gly	Asn	Tyr	Thr	Ile	Met	Ala	Ala
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Lys	Leu	Gln	Asn	Thr	Gly	Val	Ala	Asp	Gly	Tyr	Pro	Val	Arg	Leu	Glu
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Cys	Arg	Val	Leu	Gly	Val	Pro	Pro	Pro	Gln	Ile	Phe	Trp	Lys	Lys	Glu
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			325					330					335		
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Cys	Thr	Ala	Arg	Leu	Asp	Val	Tyr	Thr	Gln	Trp	His	Gln	Gln	Ser	Gln
	370					375					380				
Ser	Thr	Lys	Pro	Lys	Lys	Val	Arg	Pro	Ser	Ala	Ser	Arg	Tyr	Ala	Ala
385					390					395					400
Leu	Ser	Asp	Gln	Gly	Leu	Asp	Ile	Lys	Ala	Ala	Phe	Gln	Pro	Glu	Ala
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<210> 5053  
 <211> 781  
 <212> DNA  
 <213> Homo sapiens

<400> 5053

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<210> 5054

<211> 156

<212> PRT

<213> Homo sapiens

<400> 5054

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			20					25					30		
Leu	Ala	Leu	Ala	Ser	Val	Pro	Cys	Ala	Gln	Gly	Ala	Cys	Pro	Ala	Ser
		35					40					45			
Ala	Asp	Leu	Lys	His	Ser	Asp	Gly	Thr	Arg	Thr	Cys	Ala	Lys	Leu	Tyr
	50					55					60				
Asp	Lys	Ser	Asp	Pro	Tyr	Tyr	Glu	Asn	Cys	Cys	Gly	Gly	Ala	Glu	Leu
65					70					75				80	
Ser	Leu	Glu	Ser	Gly	Ala	Asp	Leu	Pro	Tyr	Leu	Pro	Ser	Asn	Trp	Ala
				85					90					95	
Asn	Thr	Ala	Ser	Ser	Leu	Val	Val	Ala	Pro	Arg	Cys	Glu	Leu	Thr	Val
			100					105					110		
Trp	Ser	Arg	Gln	Gly	Lys	Ala	Gly	Lys	Thr	His	Lys	Phe	Ser	Ala	Gly
		115					120					125			
Thr	Tyr	Pro	Arg	Leu	Glu	Glu	Tyr	Arg	Arg	Gly	Ile	Leu	Gly	Asp	Trp
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145

150

155

&lt;210&gt; 5055

&lt;211&gt; 2520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5055

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&lt;210&gt; 5056

&lt;211&gt; 672

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5056

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			20					25					30		
Asp	Val	Thr	Val	Ile	Val	Glu	Asp	Arg	Lys	Phe	Arg	Ala	His	Lys	Asn
		35					40					45			
Ile	Leu	Ser	Ala	Ser	Ser	Thr	Tyr	Phe	His	Gln	Leu	Phe	Ser	Val	Ala
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Gly	Gln	Val	Val	Glu	Leu	Ser	Phe	Ile	Arg	Ala	Glu	Ile	Phe	Ala	Glu

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Ile	Leu	Asn	Tyr	Ile	Tyr	Ser	Ser	Lys	Ile	Val	Arg
				85				90			95
Leu	Leu	Asp	Glu	Leu	Ile	Lys	Ser	Gly	Gln	Leu	Leu
				100				105			110
Ile	Ala	Glu	Leu	Gly	Val	Pro	Leu	Ser	Gln	Val	Lys
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Thr	Ala	Gln	Asp	Gly	Asn	Thr	Glu	Pro	Leu	Pro	Pro
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Lys	Asn	Leu	Val	Ile	Gln	Lys	Ser	Lys	Asp	Glu	Ala
				145				150			155
Ala	Thr	Ile	Met	Pro	Ile	Ile	Thr	Glu	Ser	Phe	Ser
				165				170			175
Asp	Tyr	Glu	Met	Lys	Lys	Ile	Ile	Val	Thr	Asp	Ser
				180				185			190
Asp	Asp	Val	Ile	Phe	Cys	Ser	Glu	Ile	Leu	Pro	Thr
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Pro	Ser	Asn	Asn	Thr	Val	Ala	Gln	Val	Gln	Ser	Asn
				210				215			220
Ala	Ile	Ser	Asp	Val	Ala	Pro	Ser	Ala	Ser	Asn	Asn
				225				230			235
Thr	Asn	Ile	Thr	Pro	Thr	Gln	Lys	Leu	Pro	Thr	Pro
				245				250			255
Thr	Leu	Ser	Gln	Thr	Gln	Gly	Ser	Glu	Lys	Leu	Leu
				260				265			270
Pro	Thr	His	Leu	Thr	Pro	Asn	Ile	Leu	Leu	Asn	Gln
				275				280			285
Ser	Thr	Pro	Pro	Asn	Val	Ser	Ser	Ser	Leu	Pro	Asn
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Ser	Ile	Asn	Leu	Leu	Val	Gln	Asn	Gln	Gln	Thr	Pro
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Leu	Thr	Gly	Asn	Lys	Ala	Asn	Glu	Glu	Glu	Glu	Glu
				325				330			335
Asp	Asp	Asp	Asp	Thr	Ile	Ser	Ser	Ser	Pro	Asp	Ser
				340				345			350
Thr	Ser	Leu	Val	Pro	Gln	Ala	Asp	Thr	Ser	Gln	Asn
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Gly	Ser	Leu	Ile	Gln	Lys	Met	Gln	Ile	Pro	Thr	Leu
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Leu	Ser	Asn	Ser	Leu	Lys	Ile	Ser	Asp	Ile	Ile	Thr
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Asp	Pro	Gly	Val	Gly	Ser	Lys	His	Leu	Met	Glu	Gly
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Thr	Leu	Asp	Thr	Ala	Thr	Glu	Ile	Glu	Gly	Leu	Ser
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Val	Tyr	Ala	Asn	Ile	Gly	Glu	Asp	Thr	Tyr	Asp	Ile
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Lys	Asp	Asp	Pro	Asp	Glu	Gly	Glu	Ala	Arg	Leu	Glu
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Lys	Thr	Ser	Gly	Ser	Glu	Met	Ala	Asn	Lys	Arg	Met
				465				470			475
Asp	Asp	His	Tyr	Glu	Leu	Ile	Val	Asp	Gly	Arg	Val
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Ile	Val	Cys	Lys	Arg	Ser	Tyr	Val	Cys	Leu	Thr	Ser





<211> 122  
 <212> PRT  
 <213> Homo sapiens

<400> 5058

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Ser Cys Pro Lys Val Asn Ser Val Tyr Val Leu Val Arg Gln Lys Ala
      35           40           45
Gly Gln Thr Pro Gln Glu Arg Val Glu Glu Val Leu Ser Gly Lys Leu
      50           55           60
Phe Asp Arg Leu Arg Asp Glu Asn Pro Asp Phe Arg Glu Lys Ile Ile
65           70           75           80
Ala Ile Asn Ser Glu Leu Thr Gln Pro Lys Leu Ala Leu Ser Glu Glu
      85           90           95
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<210> 5059  
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<400> 5059

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<210> 5060  
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<400> 5060

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&lt;210&gt; 5062

&lt;211&gt; 136

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5062

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Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Pro Gln Gln
 35           40           45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
 50           55           60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
 65           70           75           80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
 85           90           95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
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<210> 5063

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5063

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<210> 5064

<211> 110

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5064

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Ala Arg Lys Tyr Trp Leu Thr Cys Phe Glu Glu Ala Leu Asp Gly Val
      35           40           45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
      50           55           60
Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
65           70           75           80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
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Asp Thr Arg Glu His Cys Leu Asn Glu Phe Asn Phe Pro Asp
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&lt;210&gt; 5065

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5065

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&lt;210&gt; 5066

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5066

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Ile Glu Asp Ala Arg Glu Arg Met Arg Thr Leu Arg Lys Leu Ile Arg
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Asp Leu Pro Gly His Tyr Tyr Glu Thr Leu Lys Phe Leu Val Gly His
      20           25           30
Leu Lys Thr Ile Ala Asp His Ser Glu Lys Asn Lys Met Glu Pro Arg
      35           40           45
Asn Leu Ala Leu Val Phe Gly Pro Thr Leu Val Arg Thr Ser Glu Asp
      50           55           60
Asn Met Thr Asp Met Val Thr His Met Pro Asp Arg Tyr Lys Ile Val
65           70           75           80
Glu Thr Leu Ile Gln His Ser Asp Trp Phe Phe Ser Asp Glu Glu Asp

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&lt;210&gt; 5067

&lt;211&gt; 2023

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5067

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<210> 5068

<211> 179

<212> PRT

<213> Homo sapiens

<400> 5068

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			20					25					30		
Ala	Leu	Gln	Asn	Glu	Arg	Thr	Glu	Arg	Ile	Arg	Ser	Leu	Leu	Glu	Arg
		35					40					45			
Gln	Ala	Arg	Glu	Ile	Glu	Ala	Phe	Asp	Ser	Glu	Ser	Met	Arg	Leu	Gly
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Phe	Ser	Asn	Met	Val	Leu	Ser	Asn	Leu	Ser	Pro	Glu	Ala	Phe	Ser	His
65				70					75					80	
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Gly	Pro	His	Trp	Gly	His	Pro	Met	Gly	Gly	Pro	Pro	Gln	Ala	Trp	Gly
		100					105					110			
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170

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<210> 5069  
<211> 3655  
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&lt;210&gt; 5070

&lt;211&gt; 255

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5070

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			20					25					30		
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			35				40					45			
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&lt;210&gt; 5072

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5072

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Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Arg	Phe	Lys	Gln	Phe	Ser	His	Leu
			20					25					30		
Ser	Leu	Gln	Ser	Ser	Trp	Asp	Tyr	Arg	His	Ala	Gln	Pro	Cys	Pro	Ala
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<212> DNA  
<213> Homo sapiens

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<210> 5074

<211> 240

<212> PRT

<213> Homo sapiens

<400> 5074

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		35				40						45			
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Val	Gln	Lys	Ala	Arg	Leu	Glu	Glu	Ser	Lys	Glu	Gln	Val	Ala	Ala	Met
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Gln	Ala	Gly	Leu	Leu	Lys	Val	Val	Pro	Gln	Ala	Val	Leu	Asp	Leu	Leu
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Pro	His	Tyr	Ala	Ser	Ala	Lys	Val	Cys	Glu	Glu	Lys	Leu	Arg	Tyr	Ala
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<211> 444

<212> DNA

<213> Homo sapiens

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<212> PRT  
<213> Homo sapiens

<400> 5076  
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Cys Trp Asp Gly Gly Gly Ser Gly Asn Phe Ser Ser Pro Gly Thr Leu  
35 40 45  
Arg Glu Thr Glu Val Ile Thr Ala Val Leu Glu Leu Gly Arg Gly Gly  
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360



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 <211> 558  
 <212> PRT  
 <213> Homo sapiens

<400> 5078  
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 35 40 45  
 Asp Gly Ser Ala Ile Gln Val Leu Lys Glu Trp Asn Met Thr Gly Lys  
 50 55 60  
 Lys Lys Asn Asn Lys Arg Lys Arg Ser Lys Ser Lys Gln His Gln Gly  
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 Asn Lys Asp Ala Lys Asp Lys Val Glu Arg Pro Glu Ala Gly Pro Leu  
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 Gln Pro Gln Pro Pro Gln Ile Gln Asn Gly Pro Met Asn Gly Cys Glu  
 100 105 110  
 Lys Asp Ser Ser Ser Thr Asp Ser Ala Asn Glu Lys Pro Ala Leu Ile  
 115 120 125  
 Pro Arg Glu Lys Lys Ile Ser Ile Leu Glu Glu Pro Ser Lys Ala Leu  
 130 135 140  
 Arg Gly Val Thr Glu Gly Asn Arg Leu Leu Gln Lys Leu Ser Leu  
 145 150 155 160  
 Asp Gly Asn Pro Lys Pro Ile His Gly Thr Thr Glu Arg Ser Asp Gly  
 165 170 175  
 Leu Gln Trp Ser Ala Glu Gln Pro Cys Asn Pro Ser Lys Pro Lys Ala  
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 Lys Thr Ser Pro Val Lys Ser Asn Thr Pro Ala Ala His Leu Glu Ile  
 195 200 205  
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 210 215 220  
 Val Lys Asp Leu Gln Arg Cys Thr Val Ser Leu Thr Arg Tyr Arg Val  
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<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5080

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5080

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		20						25				30			
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		35					40					45			
Ile	Pro	Asp	Val	Asp	Ile	Asp	Ser	Asp	Gly	Val	Phe	Lys	Tyr	Val	Leu
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Lys	Glu	Ile	Val	Arg	Gly	Tyr	Lys	Trp	Ala	Glu	Tyr	His	Ala	Asp	Ile

				85					90					95					
Tyr	Asp	Lys	Val	Ser	Gly	Asp	Met	Gln	Lys	Gln	Gly	Cys	Asp	Cys	Glu				
			100						105					110					
Cys	Leu	Gly	Gly	Gly	Arg	Ile	Ser	His	Gln	Ser	Gln	Asp	Lys	Lys	Ile				
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His	Val	Tyr	Gly	Tyr	Ser	Met	Val	Ser	Arg	Ser	Pro	Val	Pro	Pro	Cys				
		130				135					140								
Arg	Arg	Pro	Gln	Tyr	Gln	Leu	Arg	Gly	Pro	Pro	Glu	Pro	Ala	Ala	Leu				
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&lt;210&gt; 5081

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5081

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561

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&lt;210&gt; 5082

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5082

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		20						25				30							
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Arg	Arg	Glu	Asp	Ser	Ala	Thr	Glu	Gly	Ser	His	Arg	Leu	Ile	Leu	Ala				
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Ala	Asn	Arg	Asp	Glu	Phe	Tyr	Ser	Arg	Pro	Ser	Lys	Leu	Ala	Asp	Phe				

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Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu	
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&lt;210&gt; 5083

&lt;211&gt; 1856

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5083

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1260

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<210> 5084

<211> 396

<212> PRT

<213> Homo sapiens

<400> 5084

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			20					25					30		
Asp	Ser	Glu	Gly	Gly	Ala	Ala	Gly	Gly	Glu	Ala	Asp	Met	Asp	Phe	Leu
		35					40					45			
Arg	Asn	Leu	Phe	Ser	Gln	Thr	Leu	Ser	Leu	Gly	Ser	Gln	Lys	Glu	Arg
	50					55					60				
Leu	Leu	Asp	Glu	Leu	Thr	Leu	Glu	Gly	Val	Ala	Arg	Tyr	Met	Gln	Ser
65					70				75					80	
Glu	Arg	Cys	Arg	Arg	Val	Ile	Cys	Leu	Val	Gly	Ala	Gly	Ile	Ser	Thr
			85					90						95	
Ser	Ala	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro	Ser	Thr	Gly	Leu	Tyr	Asp
		100						105					110		
Asn	Leu	Glu	Lys	Tyr	His	Leu	Pro	Tyr	Pro	Glu	Ala	Ile	Phe	Glu	Ile
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		180					185					190			
Ala	His	Gly	Thr	Phe	Tyr	Thr	Ser	His	Cys	Val	Ser	Ala	Ser	Cys	Arg
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210	215	220
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Asp Phe Leu Lys Val Asp	Leu Leu Leu Val Met	Gly Thr Ser Leu Gln
260	265	270
Val Gln Pro Phe Ala Ser	Leu Ile Ser Lys Ala	Pro Leu Ser Thr Pro
275	280	285
Arg Leu Leu Ile Asn Lys	Glu Lys Ala Gly Gln	Ser Asp Pro Phe Leu
290	295	300
Gly Met Ile Met Gly Leu	Gly Gly Gly Met Asp	Phe Asp Ser Lys Lys
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Ala Tyr Arg Asp Val Ala	Trp Leu Gly Glu Cys	Asp Gln Gly Cys Leu
325	330	335
Ala Leu Ala Glu Leu Leu	Gly Trp Lys Lys Glu	Leu Glu Asp Leu Val
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Arg Arg Glu His Ala Ser	Ile Asp Ala Gln Ser	Gly Ala Gly Val Pro
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Asn Pro Ser Thr Ser Ala	Ser Pro Lys Lys Ser	Pro Pro Pro Ala Lys
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&lt;210&gt; 5085

&lt;211&gt; 2964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5085

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&lt;210&gt; 5086

&lt;211&gt; 792

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5086

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His	Pro	Asp	Val	His	Ile	Met	Gln	His	His	Val	Leu	Pro	Ile	Gln	Ala
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Arg	Leu	Gly	Ser	Ile	Ala	Glu	Ile	Asp	Leu	Gly	Val	Pro	Pro	Pro	Val
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Met	Lys	Thr	Phe	Lys	Glu	Phe	Leu	Leu	Ser	Leu	Asp	Asp	Ser	Val	Asp
65				70					75					80	
Glu	Thr	Glu	Ala	Val	Lys	Arg	Tyr	Asn	Asp	Tyr	Lys	Leu	Asp	Phe	Arg
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Arg	Gln	Gln	Met	Gln	Asp	Phe	Phe	Leu	Ala	His	Lys	Asp	Glu	Glu	Trp
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Phe	Arg	Ser	Lys	Tyr	His	Pro	Asp	Glu	Val	Gly	Lys	Arg	Arg	Gln	Glu
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Ala	Arg	Gly	Ala	Leu	Gln	Asn	Arg	Leu	Arg	Val	Phe	Leu	Ser	Leu	Met
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Glu	Thr	Gly	Trp	Phe	Asp	Asn	Leu	Leu	Leu	Asp	Ile	Asp	Lys	Ala	Asp
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Ala	Ile	Val	Lys	Met	Leu	Asp	Ala	Ala	Val	Ile	Lys	Met	Glu	Gly	Gly
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Thr	Glu	Asn	Asp	Leu	Arg	Ile	Leu	Glu	Gln	Glu	Glu	Glu	Glu	Gln	
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Ala	Gly	Lys	Pro	Gly	Glu	Pro	Ser	Lys	Lys	Glu	Glu	Gly	Arg	Ala	Gly

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Lys Glu Asp Gly Lys Gln Ala Glu Asn Asp Ser Ser Asn Asp Asp Lys		
225	230	235
Thr Lys Lys Ser Glu Gly Asp Gly Asp Lys Glu Glu Lys Lys Glu Asp		
245	250	255
Ser Glu Lys Glu Ala Lys Lys Ser Ser Lys Lys Arg Asn Arg Lys His		
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Ser Gly Asp Asp Ser Phe Asp Glu Gly Ser Val Ser Glu Ser Glu Ser		
275	280	285
Glu Ser Glu Ser Gly Gln Ala Glu Glu Glu Lys Glu Glu Ala Glu Glu		
290	295	300
Ala Leu Lys Glu Lys Glu Lys Pro Lys Glu Glu Glu Trp Glu Lys Pro		
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Lys Asp Ala Ala Gly Leu Glu Cys Lys Pro Arg Pro Leu His Lys Thr		
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Cys Ser Leu Phe Met Arg Asn Ile Ala Pro Asn Ile Ser Arg Ala Glu		
340	345	350
Ile Ile Ser Leu Cys Lys Arg Tyr Pro Gly Phe Met Arg Val Ala Leu		
355	360	365
Ser Glu Pro Gln Pro Glu Arg Arg Phe Phe Arg Arg Gly Trp Val Thr		
370	375	380
Phe Asp Arg Ser Val Asn Ile Lys Glu Ile Cys Trp Asn Leu Gln Asn		
385	390	395
Ile Arg Leu Arg Glu Cys Glu Leu Ser Pro Gly Val Asn Arg Asp Leu		
405	410	415
Thr Arg Arg Val Arg Asn Ile Asn Gly Ile Thr Gln His Lys Gln Ile		
420	425	430
Val Arg Asn Asp Ile Lys Leu Ala Ala Lys Leu Ile His Thr Leu Asp		
435	440	445
Asp Arg Thr Gln Leu Trp Ala Ser Glu Pro Gly Thr Pro Pro Leu Pro		
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Thr Ser Leu Pro Ser Gln Asn Pro Ile Leu Lys Asn Ile Thr Asp Tyr		
465	470	475
Leu Ile Glu Glu Val Ser Ala Glu Glu Glu Leu Leu Gly Ser Ser		
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Ile Asn Val Glu Arg Asp Glu Lys Leu Ile Lys Val Leu Asp Lys Leu		
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Leu Leu Tyr Leu Arg Ile Val His Ser Leu Asp Tyr Tyr Asn Thr Cys		
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Pro Glu Gln Glu Val Glu Lys Phe Val Thr Ser Asn Thr Gln Glu Leu		
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Ile	Leu	Gly	Tyr	Gly	Ala	Gly	Ala	Val	Arg	Pro	Ala	Val	Pro	Thr	Gly
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Asp	Ala	Phe	Arg	Gly	Gln	Gly	Gly	Tyr	Pro	Gly	Lys	Pro	Arg	Asn	Arg
		755				760					765				
Met	Val	Arg	Gly	Asp	Pro	Arg	Ala	Ile	Val	Glu	Tyr	Arg	Asp	Leu	Asp
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Ala	Pro	Asp	Asp	Val	Asp	Phe	Phe								
785					790										

&lt;210&gt; 5087

&lt;211&gt; 4949

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5087

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 4440  
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&lt;210&gt; 5088

&lt;211&gt; 465

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5088

Gly	Ser	Gly	Thr	Thr	Arg	Pro	Leu	Glu	Val	His	Pro	Gly	Pro	Pro	Arg
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Leu	Val	Gly	Gly	Ala	Gln	Gly	Glu	Gly	Gly	Trp	Ala	Ala	Gly	Asp	Lys
		20						25					30		
Gln	Gly	Arg	Ser	Cys	Pro	Gly	Thr	Pro	Asp	Ile	Ala	Asp	Val	Ala	Glu
		35					40					45			
Leu	Arg	Val	Glu	Leu	Thr	His	Gly	Ala	Glu	Thr	Leu	Thr	Leu	Trp	Gln
	50					55				60					
Ser	Thr	Gly	Pro	Trp	Xaa	Pro	Trp	Xaa	Trp	Gln	Glu	Leu	Ala	Val	Thr
65					70				75					80	
Thr	Gly	Arg	Ile	Arg	Gly	Asp	Phe	Arg	Val	Thr	Phe	Ser	Ala	Thr	Arg
				85				90						95	
Asn	Ala	Thr	His	Arg	Gly	Ala	Val	Ala	Leu	Asp	Asp	Leu	Glu	Phe	Trp
		100					105					110			
Asp	Cys	Gly	Leu	Pro	Thr	Pro	Gln	Ala	Asn	Cys	Pro	Pro	Gly	His	His

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      115      120      125
His Cys Gln Asn Lys Val Cys Val Glu Pro Gln Gln Leu Cys Asp Gly
      130      135      140
Glu Asp Asn Cys Gly Asp Leu Ser Asp Glu Asn Pro Leu Thr Cys Gly
145      150      155      160
Arg His Ile Ala Thr Asp Phe Glu Thr Gly Leu Gly Pro Trp Asn Arg
      165      170      175
Ser Glu Gly Trp Ser Arg Asn His Arg Ala Gly Gly Pro Glu Arg Pro
      180      185      190
Ser Trp Pro Arg Arg Asp His Ser Arg Asn Ser Ala Xaa Arg Leu Val
      195      200      205
Phe Tyr Gln Tyr Leu Ser Gly Ser Glu Ala Gly Cys Leu Gln Leu Phe
      210      215      220
Leu Gln Thr Leu Gly Pro Gly Ala Pro Arg Ala Pro Val Leu Leu Arg
225      230      235      240
Arg Arg Arg Gly Glu Leu Gly Thr Ala Trp Val Arg Asp Arg Val Asp
      245      250      255
Ile Gln Ser Ala Tyr Pro Phe Gln Ile Leu Leu Ala Gly Gln Thr Gly
      260      265      270
Pro Gly Gly Val Val Gly Leu Asp Asp Leu Ile Leu Ser Asp His Cys
      275      280      285
Arg Pro Val Ser Glu Val Ser Thr Leu Gln Pro Leu Pro Pro Gly Pro
      290      295      300
Arg Ala Pro Ala Pro Gln Pro Leu Pro Pro Ser Ser Arg Leu Gln Asp
305      310      315      320
Ser Cys Lys Gln Gly His Leu Ala Cys Gly Asp Leu Cys Val Pro Pro
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Glu Gln Leu Cys Asp Phe Glu Glu Gln Cys Ala Gly Gly Glu Asp Glu
      340      345      350
Gln Ala Cys Gly Thr Thr Asp Phe Glu Ser Pro Glu Ala Gly Gly Trp
      355      360      365
Glu Asp Ala Ser Val Gly Arg Leu Gln Trp Arg Arg Val Ser Ala Gln
      370      375      380
Glu Ser Gln Gly Ser Ser Ala Ala Ala Ala Gly His Phe Leu Ser Leu
385      390      395      400
Gln Arg Ala Trp Gly Gln Leu Gly Ala Glu Ala Arg Val Leu Thr Pro
      405      410      415
Leu Leu Gly Pro Ser Gly Pro Ser Cys Glu Leu His Leu Ala Tyr Tyr
      420      425      430
Leu Gln Ser Gln Pro Arg Ala Gly Phe Val Gly Leu Val Asp Leu Asp
      435      440      445
Gly Pro Asp Gln Gln Xaa Ser Trp Gly Gly Gln Arg Asp Pro Glu Gly
450      455      460
Leu
465

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&lt;210&gt; 5089

&lt;211&gt; 793

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5089

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&lt;210&gt; 5090

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5090

Xaa	Asp	His	Ile	Ser	Asp	Asp	Pro	His	Thr	Phe	Asn	His	Gln	Asn	Leu
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Thr	His	Cys	Ser	Arg	His	Gly	Ser	Gly	Pro	Asn	Ile	Ile	Leu	Thr	Gly
			20					25					30		
Asp	Ser	Ser	Pro	Gly	Phe	Ser	Lys	Glu	Ile	Ala	Ala	Ala	Leu	Ala	Gly
		35					40					45			
Val	Pro	Gly	Phe	Glu	Val	Ser	Ala	Ala	Gly	Leu	Glu	Leu	Gly	Leu	Gly
	50					55					60				
Leu	Glu	Asp	Glu	Leu	Arg	Met	Glu	Pro	Leu	Gly	Leu	Glu	Gly	Leu	Asn
65					70					75				80	
Met	Leu	Ser	Asp	Pro	Cys	Ala	Leu	Leu	Pro	Asp	Pro	Ala	Val	Glu	Glu
				85					90					95	
Ser	Phe	Arg	Ser	Asp	Arg	Leu	Gln								

&lt;210&gt; 5091

&lt;211&gt; 3150

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5091

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&lt;210&gt; 5092

<211> 632  
 <212> PRT  
 <213> Homo sapiens

<400> 5092

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Ser His Thr Pro Phe Pro Lys Leu Glu Leu Gly Leu Gly Pro Gln Pro
      35           40           45
Met Ala Pro Arg Glu Leu Pro Thr Cys Ser Ile Cys Leu Glu Arg Leu
 50           55           60
Arg Asp Pro Ile Ser Leu Asp Cys Gly His Asp Phe Cys Ile Arg Cys
65           70           75           80
Phe Ser Thr His Arg Leu Pro Gly Cys Glu Pro Pro Cys Cys Pro Glu
      85           90           95
Cys Arg Lys Ile Cys Lys Gln Lys Arg Gly Leu Arg Ser Leu Gly Glu
      100          105          110
Lys Met Lys Leu Leu Pro Gln Arg Pro Leu Pro Pro Ala Leu Gln Glu
      115          120          125
Thr Cys Pro Val Arg Ala Glu Pro Leu Leu Leu Val Arg Ile Asn Ala
      130          135          140
Ser Gly Gly Leu Ile Leu Arg Met Gly Ala Ile Asn Arg Cys Leu Lys
      145          150          155          160
His Pro Leu Ala Arg Asp Thr Pro Val Cys Leu Leu Ala Val Leu Gly
      165          170          175
Glu Gln His Ser Gly Lys Ser Phe Leu Leu Asn His Leu Leu Gln Gly
      180          185          190
Leu Pro Gly Leu Glu Ser Gly Glu Gly Gly Arg Pro Arg Gly Gly Glu
      195          200          205
Ala Ser Leu Gln Gly Cys Arg Trp Gly Ala Asn Gly Leu Ala Gly Gly
      210          215          220
Ile Trp Met Trp Ser His Pro Phe Leu Leu Gly Lys Glu Gly Lys Lys
      225          230          235          240
Val Ala Val Phe Leu Val Asp Thr Gly Asp Ala Met Ser Pro Glu Leu
      245          250          255
Ser Arg Glu Thr Arg Ile Lys Leu Cys Ala Leu Thr Thr Met Leu Ser
      260          265          270
Ser Tyr Gln Ile Leu Ser Thr Ser Gln Glu Leu Lys Asp Thr Asp Leu
      275          280          285
Asp Tyr Leu Glu Met Phe Val His Val Ala Glu Val Met Gly Lys His
      290          295          300
Tyr Gly Met Val Pro Ile Gln His Leu Asp Leu Leu Val Arg Asp Ser
      305          310          315          320
Ser His Pro Asn Lys Ala Gly Gln Gly His Val Gly Asn Ile Phe Gln
      325          330          335
Arg Leu Ser Gly Arg Tyr Pro Lys Val Gln Glu Leu Leu Gln Gly Lys
      340          345          350
Arg Ala Arg Cys Cys Leu Leu Pro Ala Pro Gly Arg Arg Arg Met Asn
      355          360          365
Gln Gly His Ala Ser Pro Gly Gly Asp Thr Asp Asp Asp Phe Arg His
      370          375          380
Leu Leu Gly Ala Tyr Val Ser Asp Val Leu Ser Ala Ala Pro Gln His

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Arg	Gly	Asp	Arg	Arg	Leu	Leu	Thr	Gly	Gln	Gln	Leu	Ala	Gln	Glu	Ile
			420					425					430		
Lys	Asn	Leu	Ser	Gly	Trp	Met	Gly	Arg	Thr	Gly	Pro	Gly	Phe	Thr	Ser
		435					440					445			
Pro	Asp	Glu	Met	Ala	Ala	Gln	Leu	His	Asp	Leu	Arg	Lys	Val	Glu	Ala
	450					455					460				
Ala	Lys	Arg	Glu	Phe	Glu	Glu	Tyr	Val	Arg	Gln	Gln	Asp	Val	Ala	Thr
465					470					475					480
Lys	Arg	Ile	Phe	Ser	Ala	Leu	Arg	Val	Leu	Pro	Asp	Thr	Met	Arg	Asn
			485						490					495	
Leu	Leu	Ser	Thr	Gln	Lys	Asp	Ala	Ile	Leu	Ala	Arg	His	Gly	Val	Ala
		500						505					510		
Leu	Leu	Cys	Lys	Gly	Arg	Asp	Gln	Thr	Leu	Glu	Ala	Leu	Glu	Ala	Glu
	515						520					525			
Leu	Gln	Ala	Thr	Ala	Lys	Ala	Phe	Met	Asp	Ser	Tyr	Thr	Met	Arg	Phe
	530					535					540				
Cys	Gly	His	Leu	Ala	Ala	Val	Gly	Gly	Ala	Val	Gly	Ala	Gly	Leu	Met
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Gly	Leu	Ala	Gly	Gly	Val	Val	Gly	Ala	Gly	Met	Ala	Ala	Ala	Ala	Leu
			565					570					575		
Ala	Ala	Glu	Ala	Gly	Met	Val	Ala	Ala	Gly	Ala	Ala	Val	Gly	Ala	Thr
		580					585					590			
Gly	Ala	Ala	Val	Val	Gly	Gly	Gly	Val	Gly	Ala	Gly	Leu	Ala	Ala	Thr
	595						600					605			
Val	Gly	Cys	Met	Glu	Lys	Glu	Glu	Asp	Glu	Arg	Leu	Leu	Glu	Gly	Asp
	610					615					620				
Arg	Glu	Pro	Leu	Leu	Gln	Glu	Glu								
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&lt;210&gt; 5093

&lt;211&gt; 1662

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5093

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<400> 5094  
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 35 40 45  
 Glu Leu Met Pro Ser Ser Arg Leu Trp Ser Leu Ser Tyr Thr Lys Leu

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Pro Ser Leu Ser Tyr Thr Lys Trp Lys Cys Leu Leu Tyr Cys Asn Gly				
65		70		75
Val Leu Glu Pro Leu Tyr Leu Cys Pro Asn Gly Ala Arg Cys Ala Thr				80
		85		90
Trp Phe Gln Asp Pro Thr Arg Phe Thr Gly Thr Met Asp Ala Phe Val				95
		100		105
Lys Ile Val Arg His Glu Gly Thr Arg Thr Leu Trp Ser Gly Leu Pro				110
		115		120
Ala Thr Leu Val Met Thr Val Pro Ala Thr Ala Ile Tyr Phe Thr Ala				125
		130		135
Tyr Asp Gln Leu Lys Ala Phe Leu Cys Gly Arg Ala Leu Thr Ser Asp				140
145		150		155
Leu Tyr Ala Pro Met Val Ala Gly Ala Leu Ala Arg Leu Gly Thr Val				160
		165		170
Thr Val Ile Ser Pro Leu Glu Leu Met Arg Thr Lys Leu Gln Ala Gln				175
		180		185
His Val Ser Tyr Arg Glu Leu Gly Ala Cys Val Arg Thr Ala Val Ala				190
		195		200
Gln Gly Gly Trp Arg Ser Leu Trp Leu Gly Trp Gly Pro Thr Ala Leu				205
		210		215
Arg Asp Val Pro Phe Ser Val His Pro Pro Pro Gln Ala Leu Tyr Trp				220
225		230		235
Phe Asn Tyr Glu Leu Val Lys Ser Trp Leu Asn Gly Leu Arg Pro Lys				240
		245		250
Asp Gln Thr Ser Val Gly Met Ser Phe Val Ala Gly Gly Ile Ser Gly				255
		260		265
Thr Val Ala Val Leu Thr Leu Pro Phe Asp Val Val Lys Thr Gln				270
		275		280
Arg Gln Val Ala Leu Gly Ala Met Glu Ala Val Arg Val Asn Pro Leu				285
		290		295
His Val Asp Ser Thr Trp Leu Leu Leu Arg Arg Ile Arg Ala Glu Ser				300
305		310		315
Gly Thr Lys Gly Leu Phe Ala Gly Phe Leu Pro Arg Ile Ile Lys Ala				320
		325		330
Ala Pro Ser Cys Ala Ile Met Ile Ser Thr Tyr Glu Phe Gly Lys Ser				335
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				365

&lt;210&gt; 5095

&lt;211&gt; 2230

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5095

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 <213> Homo sapiens

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&lt;210&gt; 5098

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5098

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Trp	Ser																

&lt;210&gt; 5099

&lt;211&gt; 801

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5099

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&lt;210&gt; 5100

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5100

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 Gly Pro Ser Ala Arg Pro Pro Pro Thr Pro Thr Trp Thr Gly Pro Gly  
 35 40 45  
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&lt;210&gt; 5101

&lt;211&gt; 1711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5101

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<210> 5102  
 <211> 436  
 <212> PRT  
 <213> Homo sapiens

<400> 5102  
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 Tyr Leu Tyr Arg Lys Gly Tyr Leu Ser Leu Ser Lys Val Val Pro Phe  
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 Ser His Tyr Ala Gly Thr Leu Leu Leu Leu Ala Gly Val Ala Cys  
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 Thr Ile Leu Glu Ala Thr His Arg Asn Gln Ser Ser Glu Asn Lys Arg  
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 Gln Leu Ala Asn Tyr Asn Phe Asp Phe Arg Ser Trp Pro Val Asp Phe  
 145 150 155 160  
 His Trp Glu Glu Pro Ser Ser Arg Lys Glu Ser Arg Gly Gly Pro Ser

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Ser Tyr Leu Val Ala His Thr Leu Gly Arg Arg Met Leu Tyr Pro Gly
                210                215                220
Ser Val Tyr Leu Leu Gln Lys Ala Leu Met Pro Ala Leu Leu Gln Gly
225                230                235                240
Gln Ala Arg Leu Val Glu Glu Cys Asn Gly Arg Arg Ala Lys Leu Leu
                245                250                255
Ala Cys Asp Gly Asn Glu Ile Asp Thr Met Phe Val Asp Arg Arg Gly
                260                265                270
Thr Ala Glu Pro Gln Gly Gln Lys Leu Val Ile Cys Cys Glu Gly Asn
                275                280                285
Ala Gly Phe Tyr Glu Val Gly Cys Val Ser Thr Pro Leu Glu Ala Gly
                290                295                300
Tyr Ser Val Leu Gly Trp Asn His Pro Gly Phe Ala Gly Ser Thr Gly
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Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val Val Gln
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Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Val Ile Tyr
                340                345                350
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                355                360                365
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                370                375                380
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Ile Thr Thr Thr
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&lt;210&gt; 5103

&lt;211&gt; 1982

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5103

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tcagggtggtg ctggcggtac gggggctctg tcccatagcg cgaggcgcgg aggcgaagca  
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1980



gg  
1982

<210> 5104  
<211> 167  
<212> PRT  
<213> Homo sapiens

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Leu His Leu Phe Pro Gln Glu Leu Leu Gly His Phe Phe Cys Leu Trp  
35 40 45  
Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu  
50 55 60  
Ser Gly Val Cys Pro Ala Ser Ser Gly Leu Leu Arg Thr Pro His Pro  
65 70 75 80  
Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu  
85 90 95  
Thr Ala Gly Trp Thr Ala Phe Arg Thr Cys Pro Gly Cys Ser Ala Phe  
100 105 110  
Val Ala Gly Ser Asn Trp Arg Asn Leu Glu Arg Gly Ser Cys Ala Cys  
115 120 125  
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly  
130 135 140  
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Tyr Glu Arg Ala Met Cys Phe  
165

<210> 5105  
<211> 1359  
<212> DNA  
<213> Homo sapiens

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480

gggcatcagc acacgtggca agctggcagc actcaccaac tacctgcagc cgcagctgga  
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<210> 5106

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5106

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			20					25					30		
Gly	Asp	Val	Ile	Cys	Tyr	Tyr	Gly	Asn	Arg	Gly	Glu	Pro	Asp	Pro	Ile
		35					40				45				
Val	Leu	Thr	Pro	Gly	Thr	Tyr	Gly	Leu	Ser	Asn	Ala	Leu	Leu	Glu	Thr
	50				55					60					
Pro	Trp	Arg	Lys	Leu	Cys	Phe	Gly	Lys	Gln	Leu	Phe	Leu	Glu	Ala	Val
65				70					75					80	
Glu	Arg	Ser	Gln	Ala	Leu	Pro	Lys	Asp	Val	Leu	Ile	Ala	Ser	Leu	Leu
			85					90					95		
Asp	Val	Leu	Asn	Asn	Glu	Glu	Ala	Gln	Leu	Pro	Asp	Pro	Ala	Ile	Glu
		100					105						110		
Asp	Gln	Gly	Gly	Glu	Tyr	Val	Gln	Pro	Met	Leu	Ser	Lys	Tyr	Ala	Ala
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<213> Homo sapiens
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4293

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<210> 5108  
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<212> PRT  
<213> Homo sapiens

<400> 5108  
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Val Gln Trp Arg Asn Leu Ser Ser Leu Gln Pro Pro Pro Gly Phe  
35 40 45  
Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg  
50 55 60  
Val Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Arg Val  
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<210> 5109  
<211> 651  
<212> DNA  
<213> Homo sapiens

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<210> 5110  
<211> 206  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5110

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Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu
          35          40          45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
          50          55          60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
65          70          75          80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
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Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe
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Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe
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Ile Thr Ser Ala Pro His Met Glu Asn Leu Lys Cys Arg Gly Glu Thr
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Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu Pro Ala Leu Ile
145         150         155         160
Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met Gln Pro Val Ile
          165         170         175
His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys
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Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile Glu Thr
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&lt;210&gt; 5111

&lt;211&gt; 2247

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5111

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540

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<210> 5112  
 <211> 581  
 <212> PRT  
 <213> Homo sapiens

<400> 5112  
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 35 40 45  
 Ser Gly Arg Pro Ser Leu Gly Ala Pro Gln Arg Leu Arg Ala Tyr Gly  
 50 55 60  
 Gly Arg Lys Gly Leu Glu Ala Ala Pro Trp Val Thr Thr Ala Arg Pro  
 65 70 75 80  
 Thr Phe Pro His Val Ala Ala Lys Thr Gly Ser Gly Ala Ser Ile Gly  
 85 90 95  
 Cys Thr Pro Thr Ser Thr Gln Ala Lys Met Val Ser Lys Arg Ile Ala  
 100 105 110  
 Gln Glu Thr Phe Asp Ala Ala Val Arg Glu Asn Ile Glu Glu Phe Ala  
 115 120 125  
 Met Gly Pro Glu Glu Ala Val Lys Glu Ala Val Glu Gln Phe Glu Ser  
 130 135 140  
 Gln Gly Val Asp Leu Ser Asn Ile Val Lys Thr Ala Pro Lys Val Ser  
 145 150 155 160  
 Ala Asp Gly Ser Gln Glu Pro Thr His Asp Ile Leu Gln Met Leu Ser  
 165 170 175  
 Asp Leu Gln Glu Ser Val Ala Ser Ser Arg Pro Gln Glu Val Ser Ala  
 180 185 190  
 Tyr Leu Thr Arg Phe Cys Asp Gln Cys Lys Gln Asp Lys Ala Cys Arg  
 195 200 205  
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 210 215 220  
 Lys Leu Ala Thr Ala Gly Asp Gln Gly Leu Leu Leu Gln Ser Leu Asn  
 225 230 235 240  
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 245 250 255  
 Gly Leu Gln Leu Leu Val Ala Thr Leu Thr Gln Asn Ala Asp Glu Ala  
 260 265 270  
 Asp Leu Thr Cys Ser Gly Ile Arg Cys Val Arg His Ala Cys Leu Lys  
 275 280 285  
 His Glu Gln Asn Arg Gln Asp Leu Val Lys Ala Gly Val Leu Pro Leu  
 290 295 300  
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 305 310 315 320  
 Glu Ala Cys Trp Ala Leu Arg Val Met Thr Phe Asp Asp Asp Ile Arg  
 325 330 335  
 Val Pro Phe Gly His Ala His Asn His Ala Lys Met Ile Val Gln Glu

340 345 350  
 Asn Lys Gly Leu Lys Val Leu Ile Glu Ala Thr Lys Ala Phe Leu Asp  
 355 360 365  
 Asn Pro Gly Ile Leu Ser Glu Leu Cys Gly Thr Leu Ser Arg Leu Ala  
 370 375 380  
 Ile Arg Asn Glu Phe Cys Gln Glu Val Val Asp Leu Gly Gly Leu Ser  
 385 390 395 400  
 Ile Leu Val Ser Leu Leu Ala Asp Cys Asn Asp His Gln Met Arg Asp  
 405 410 415  
 Gln Ser Gly Val Gln Glu Leu Val Lys Gln Val Leu Ser Thr Leu Arg  
 420 425 430  
 Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly  
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 Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro  
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 Gln Val Trp Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg  
 465 470 475 480  
 Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Gly Ala Val Ala  
 485 490 495  
 Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys  
 500 505 510  
 Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe  
 515 520 525  
 Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala  
 530 535 540  
 Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg  
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 <211> 472  
 <212> DNA  
 <213> Homo sapiens

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<210> 5114  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

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 Met His Leu Thr Pro Val Ile Gly Thr Gln Arg Gly Ala Trp His Leu  
 35 40 45  
 Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala  
 50 55 60  
 Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp  
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<210> 5115  
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 <212> DNA  
 <213> Homo sapiens

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<210> 5116

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5116

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Ser	Pro	Gly	Pro	Gln	Ala	Leu	Lys	Gly	Gly	Ala	Arg	Gly	Ser	Gly	His
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Val	Leu	Thr	Ser	Ser	Ser	Gly	Ser	Ala	Cys	Ala	Gly	Ser	Pro	Leu	Cys
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Gly	Cys														
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<210> 5117

<211> 1180

<212> DNA

<213> Homo sapiens

<400> 5117

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&lt;210&gt; 5118

&lt;211&gt; 300

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5118

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Gly	Asn	Arg	Cys	Cys	Ala	Phe	Ser	Asn	Ser	Lys	Lys	Thr	Ser	Lys	Ala
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 <213> Homo sapiens

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<211> 314

<212> PRT

<213> Homo sapiens

<400> 5120

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Ile	Phe	Tyr	Phe	Leu	Thr	Leu	Ala	Gly	Asn	Met	Val	Ile	Val	Leu	Val
		35				40					45				
Ser	Leu	Lys	Asp	Pro	Lys	Leu	His	Ile	Pro	Met	Tyr	Phe	Phe	Leu	Ser
		50				55					60				
Asn	Leu	Ser	Leu	Val	Asp	Leu	Cys	Leu	Thr	Ser	Ser	Cys	Val	Pro	Gln
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Met	Leu	Ile	Asn	Phe	Trp	Gly	Pro	Glu	Lys	Thr	Ile	Ser	Tyr	Ile	Gly
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Cys	Ala	Ile	Gln	Leu	Tyr	Val	Phe	Leu	Trp	Leu	Gly	Ala	Thr	Glu	Tyr
			100					105					110		
Val	Leu	Leu	Val	Val	Met	Ala	Val	Asp	Cys	Tyr	Val	Ala	Val	Cys	His

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Pro Ala Thr Leu Arg Leu Pro Phe Cys	Ser Gln Arg Met Val	Asp Asp
165	170	175
Val Val Cys Glu Val Pro Ala Leu Ile	Gln Leu Ser Ser Thr	Asp Thr
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Thr Tyr Ser Glu Ile Gln Met Ser Ile	Ala Ser Val Val	Leu Leu Val
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&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5121

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 50 55 60  
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 Pro Phe Thr Glu Tyr Trp Thr Cys Ile Asp Tyr Thr Gly Gln Gln Leu  
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 Phe Arg His Cys Arg Lys Gln Gln Ala Lys Phe Asp Glu Cys Val Leu  
 100 105 110  
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 115 120 125  
 Thr Lys Val Lys Thr Asp Arg Pro Leu Pro Glu Asn Pro Tyr His Ser  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5125

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&lt;210&gt; 5126

<211> 117  
 <212> PRT  
 <213> Homo sapiens

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 Phe Ser Cys Ser Phe Cys Val Val Phe Arg Gly Gly Ser Pro His Ala  
 35 40 45  
 Glu Ile Leu Cys Met Gln Pro Thr Gly Lys Arg Pro Pro Gly Ser Gln  
 50 55 60  
 Asp Phe Ser Phe Ser Cys Leu Cys Pro Ala Thr Cys Ser Leu Pro Leu  
 65 70 75 80  
 Phe Arg Cys Gln Arg Gly Asp Phe Arg Ala Val Cys Phe Asn Pro Gly  
 85 90 95  
 Arg Ser Asp Thr Leu Val Ser Phe Phe Gln Glu Thr Ile Ala Phe Thr  
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 Asp Val Leu Val Val  
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<210> 5127  
 <211> 400  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 300  
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 <211> 55  
 <212> PRT  
 <213> Homo sapiens

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 Cys Val Phe Pro Ser Ser Ser Ser Thr Cys Trp Thr Cys Thr Gly Pro  
 20 25 30  
 Trp Gly Trp Thr Phe Thr Gly Thr Met Ser Ala Gly Ser Ala Ala Pro

35 40 45  
 Ala Ser Ser Thr Thr Ile Ser  
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<210> 5129  
 <211> 745  
 <212> DNA  
 <213> Homo sapiens

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 360  
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 420  
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 720  
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<210> 5130  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 5130  
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 Trp Ala Leu Ala Gly Ala Arg Gln Leu Phe Leu Ala Pro Gln Gln Ile  
 20 25 30  
 Ser Arg Gln Leu His Phe Arg Leu Leu Glu Glu Arg Gln Gly Val Gly  
 35 40 45  
 Gly Val Gly Leu Ser Ala Lys Gly Gly Lys His Pro Gln Asp Arg Asn  
 50 55 60  
 Leu Ala Ala Val Gly Pro Glu Val Gln Ala Cys Gly Trp Ala Arg Pro  
 65 70 75 80  
 Asp Pro Ala Cys Ala Gly Gly Gln Val Ala Gly Gly Gly Glu Pro Gly

	85		90		95
Val	Val	Gln	Ala	Ala	Trp
		Met	Ser	Arg	Gln
				Leu	Gly
				Leu	Cys
					Pro
	100		105		110

<210> 5131  
 <211> 789  
 <212> DNA  
 <213> Homo sapiens

<400> 5131  
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 360  
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 789

<210> 5132  
 <211> 263  
 <212> PRT  
 <213> Homo sapiens

<400> 5132  
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 Ile Gly Glu Val Leu Val Ser Val Asn Pro Tyr Gln Glu Leu Pro Leu  
 20 25 30  
 Tyr Gly Pro Glu Ala Ile Ala Gln Tyr Gln Gly Arg Glu Leu Tyr Glu  
 35 40 45  
 Arg Pro Pro His Leu Tyr Ala Val Ala Asn Ala Ala Tyr Lys Ala Met  
 50 55 60  
 Lys His Arg Ser Arg Asp Thr Cys Ile Val Ile Ser Gly Glu Ser Gly

65					70					75					80
Ala	Gly	Lys	Thr	Glu	Ala	Ser	Lys	His	Ile	Met	Gln	Tyr	Ile	Ala	Ala
				85					90					95	
Val	Thr	Asn	Pro	Ser	Gln	Arg	Ala	Glu	Val	Glu	Arg	Val	Lys	Asp	Val
			100					105					110		
Leu	Leu	Lys	Ser	Thr	Cys	Val	Leu	Glu	Ala	Phe	Gly	Asn	Ala	Arg	Thr
		115					120					125			
Asn	Arg	Asn	His	Asn	Ser	Ser	Arg	Phe	Gly	Lys	Tyr	Met	Asp	Ile	Asn
	130					135					140				
Phe	Asp	Phe	Lys	Gly	Asp	Pro	Ile	Gly	Gly	His	Ile	His	Ser	Tyr	Leu
145				150						155					160
Leu	Glu	Lys	Ser	Arg	Val	Leu	Lys	Gln	His	Val	Gly	Glu	Arg	Asn	Phe
			165					170						175	
His	Ala	Phe	Tyr	Gln	Leu	Leu	Arg	Gly	Ser	Glu	Asp	Lys	Gln	Leu	His
			180					185					190		
Glu	Leu	His	Leu	Glu	Arg	Asn	Pro	Ala	Val	Tyr	Asn	Phe	Thr	His	Gln
		195				200						205			
Gly	Ala	Gly	Leu	Asn	Met	Thr	Val	His	Ser	Ala	Leu	Asp	Ser	Asp	Glu
	210					215					220				
Gln	Ser	His	Gln	Ala	Val	Thr	Glu	Ala	Met	Arg	Val	Ile	Gly	Phe	Ser
225				230						235					240
Pro	Glu	Glu	Val	Glu	Ser	Val	His	Arg	Ile	Leu	Ala	Ala	Ile	Leu	His
			245					250						255	
Leu	Gly	Asn	Ile	Glu	Phe	Val									
			260												

&lt;210&gt; 5133

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5133

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120

tgaccgacca gacagaaatg ttcggcagcc tcaggaagggt ttttgaaaaa ggccacccca  
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gaggtggagt ggacaggagc attaccacct cagccaccct gaccactatc atcaccatgg  
240

aaaaagtgac ttgagcagag gctctcccta tagagaatct cctttgggtc attttgaaag  
300

ctatggaggg atgccctttt tccaggctca gaagatgttt gttgatgtac cagaaaatac  
360

agtgatactg gatgagatga cccttcggca catggttcag gattgcactg ctgtaaaaac  
420

tcagttactc aaactgaaac gtctcctgca tcagcatgat ggaagtgggt cattgcatga  
480

tattcaactg tcattgccat ccagtcagga accagaagat ggtgataaag tatataagaa  
540

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581

&lt;210&gt; 5134



<211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 5134  
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 20 25 30  
 His Leu Ser His Pro Asp His Tyr His His His Gly Lys Ser Asp Leu  
 35 40 45  
 Ser Arg Gly Ser Pro Tyr Arg Glu Ser Pro Leu Gly His Phe Glu Ser  
 50 55 60  
 Tyr Gly Gly Met Pro Phe Phe Gln Ala Gln Lys Met Phe Val Asp Val  
 65 70 75 80  
 Pro Glu Asn Thr Val Ile Leu Asp Glu Met Thr Leu Arg His Met Val  
 85 90 95  
 Gln Asp Cys Thr Ala Val Lys Thr Gln Leu Leu Lys Leu Lys Arg Leu  
 100 105 110  
 Leu His Gln His Asp Gly Ser Gly Ser Leu His Asp Ile Gln Leu Ser  
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 Leu Pro Ser Ser Pro Glu Pro Glu Asp Gly Asp Lys Val Tyr Lys Asn  
 130 135 140  
 Glu Asp Leu Leu Asn Glu Ile Lys Gln Leu Lys Asp Glu  
 145 150 155

<210> 5135  
 <211> 1696  
 <212> DNA  
 <213> Homo sapiens

<400> 5135  
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<210> 5136  
 <211> 341  
 <212> PRT  
 <213> Homo sapiens

<400> 5136  
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 20 25 30  
 Gly Leu Leu Ser Gly Gly Leu Pro Arg Lys Cys Ser Val Phe His Leu  
 35 40 45  
 Phe Val Ala Cys Leu Ser Leu Gly Phe Phe Ser Leu Leu Trp Leu Gln  
 50 55 60  
 Leu Ser Cys Ser Gly Asp Val Ala Arg Ala Val Arg Gly Gln Gly Gln  
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<210> 5137
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<212> DNA
<213> Homo sapiens
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420

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1980  
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2040

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 2280  
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 2880  
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 2940  
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<210> 5138

<211> 371

<212> PRT

<213> Homo sapiens

<400> 5138

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Leu	Glu	Glu	Ser	Gly	Asp	Leu	Gly	Thr	Ala	Pro	Asp	Glu	Ala	Val	Arg
			20					25					30		
Ala	Pro	Leu	Asp	Trp	Ala	Leu	Pro	Leu	Ser	Glu	Val	Pro	Ser	Asp	Trp
		35				40					45				
Glu	Val	Asp	Asp	Leu	Leu	Cys	Ser	Leu	Leu	Ser	Pro	Pro	Ala	Ser	Leu
	50				55					60					
Asn	Ile	Leu	Ser	Ser	Ser	Asn	Pro	Cys	Leu	Val	His	His	Asp	His	Thr
65				70					75				80		
Tyr	Ser	Leu	Pro	Arg	Glu	Thr	Val	Ser	Met	Asp	Leu	Glu	Ser	Glu	Ser

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<210> 5139
<211> 1968
<212> DNA
<213> Homo sapiens
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tacaatgttt acagcacatt ccagagccat gaacccgagt tcgattacct gaagagttta
300
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aatgggtcag acagtgtcat catgacaggc tcctataaca acttcttcag gatgtttgat  
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1380  
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1920

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1968

<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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Met Glu Glu Asp Ile Asp Thr Arg Lys Ile Asn Asn Ser Phe Leu Arg
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Asp His Ser Tyr Ala Thr Glu Ala Asp Ile Ile Ser Thr Val Glu Phe
 20           25           30
Asn His Thr Gly Glu Leu Leu Ala Thr Gly Asp Lys Gly Gly Arg Val
 35           40           45
Val Ile Phe Gln Arg Glu Gln Glu Ser Lys Asn Gln Val His Arg Arg
 50           55           60
Gly Glu Tyr Asn Val Tyr Ser Thr Phe Gln Ser His Glu Pro Glu Phe
 65           70           75           80
Asp Tyr Leu Lys Ser Leu Glu Ile Glu Glu Lys Ile Asn Lys Ile Arg
 85           90           95
Trp Leu Pro Gln Gln Asn Ala Ala Tyr Phe Leu Leu Ser Thr Asn Asp
100           105           110
Lys Thr Val Lys Leu Trp Lys Val Ser Glu Arg Asp Lys Arg Pro Glu
115           120           125
Gly Tyr Asn Leu Lys Asp Glu Gly Arg Leu Arg Asp Pro Ala Thr
130           135           140
Ile Thr Thr Leu Arg Val Pro Val Leu Arg Pro Met Asp Leu Met Val
145           150           155           160
Glu Ala Thr Pro Arg Arg Val Phe Ala Asn Ala His Thr Tyr His Ile
165           170           175
Asn Ser Ile Ser Val Asn Ser Asp Tyr Glu Thr Tyr Met Ser Ala Asp
180           185           190
Asp Leu Arg Ile Asn Leu Trp Asn Phe Glu Ile Thr Asn Gln Ser Phe
195           200           205
Asn Ile Val Asp Ile Lys Pro Ala Asn Met Glu Glu Leu Thr Glu Val
210           215           220
Ile Thr Ala Ala Glu Phe His Pro His His Cys Asn Thr Phe Val Tyr
225           230           235           240
Ser Ser Ser Lys Gly Thr Ile Arg Leu Cys Asp Met Arg Ala Ser Ala
245           250           255
Leu Cys Asp Arg His Thr Lys Phe Phe Glu Glu Pro Glu Asp Pro Ser
260           265           270
Asn Arg Ser Phe Phe Ser Glu Ile Ser Ser Ile Ser Asp Val Lys
275           280           285
Phe Ser His Ser Gly Arg Tyr Ile Met Thr Arg Asp Tyr Leu Thr Val
290           295           300
Lys Val Trp Asp Leu Asn Met Glu Ser Arg Pro Val Glu Thr His Gln
305           310           315           320
Val His Asp Tyr Leu Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn Asp
325           330           335
Cys Ile Phe Asp Lys Phe Glu Cys Val Trp Asn Gly Ser Asp Ser Val
340           345           350
Ile Met Thr Gly Ser Tyr Asn Asn Phe Phe Arg Met Phe Asp Arg Asp

```



355	360	365
Thr Lys Arg Asp Val	Thr Leu Glu Ala Ser Arg	Glu Asn Ser Lys Pro
370	375	380
Arg Ala Ile Leu Lys	Pro Arg Lys Val Cys Val	Gly Gly Lys Arg Arg
385	390	395
Lys Asp Glu Ile Ser	Val Asp Ser Leu Asp Phe	Ser Lys Lys Ile Leu
405	410	415
His Thr Ala Trp His	Pro Val Asp Asn Val Ile	Ala Val Ala Ala Thr
420	425	430
Asn Asn Leu Tyr Ile	Phe Gln Asp Lys Ile Asn	
435	440	

&lt;210&gt; 5141

&lt;211&gt; 928

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5141

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240
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420
caggtggagc actacgagtt ccagacgcgc cagctggagc tgaaggccaa gaactatgcc
480
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928

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&lt;210&gt; 5142

&lt;211&gt; 227

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5142

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Glu Arg Leu Ile His Cys Tyr Asp Glu Glu Val Val Lys Glu Leu Met
          20           25           30
Pro Leu Val Val Asn Val Leu Glu Asn Leu Asp Ser Val Leu Ser Glu
          35           40           45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Leu Arg Glu Asp Asn Glu
          50           55           60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
          65           70           75           80
Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
          85           90           95
Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
          100          105          110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
          115          120          125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
          130          135          140
Thr Glu Met Ile Gln Thr Tyr Val Glu His Ile Glu Arg Ser Lys Met
          145          150          155          160
Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
          165          170          175
Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
          180          185          190
Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
          195          200          205
His Trp His Leu Ser Asp Leu Gly Gln Leu Gln Ser Ser Ser Ser Tyr
          210          215          220
Gln Val Leu
225

```

&lt;210&gt; 5143

&lt;211&gt; 1666

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5143

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120
cgagaagact ttcgggtgcg ctgcacctcg aagcgggctg tgaccgaaat gctacaactg
180
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240
ctgcgagatg cgcagtggac ttttgaatca gctgtgcaag agaatatcag cattaatggg
300
caagcatggc aggaagcttc agataattgt tttatggatt ctgacatcaa agtacttgaa
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gatcagtttg atgaaatcat agtagatata gccacaaaac gtaagcagta tcccagaaag
420

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 720  
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<210> 5144

<211> 218

<212> PRT

<213> Homo sapiens

<400> 5144

Leu	Pro	Glu	Glu	Ile	Arg	Glu	Pro	Ala	Leu	Arg	Asp	Ala	Gln	Trp	Thr
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Phe	Glu	Ser	Ala	Val	Gln	Glu	Asn	Ile	Ser	Ile	Asn	Gly	Gln	Ala	Trp
			20					25					30		
Gln	Glu	Ala	Ser	Asp	Asn	Cys	Phe	Met	Asp	Ser	Asp	Ile	Lys	Val	Leu

35	40	45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys		
50	55	60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala		
65	70	75
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp		
85	90	95
Leu Lys Tyr Asp Pro Asp Pro Ala Pro His Met Glu Asn Leu Lys Cys		
100	105	110
Arg Gly Glu Thr Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu		
115	120	125
Pro Ala Leu Ile Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met		
130	135	140
Gln Pro Val Ile His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser		
145	150	155
Cys His Arg Lys Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile		
165	170	175
Glu Thr Thr Pro Thr Glu Thr Ala Ser Arg Lys Thr Ser Asp Met Val		
180	185	190
Leu Lys Arg Lys Gln Thr Lys Asp Cys Pro Gln Arg Lys Trp Tyr Pro		
195	200	205
Leu Arg Pro Lys Lys Ile Asn Leu Asp Thr		
210	215	

&lt;210&gt; 5145

&lt;211&gt; 1885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5145

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720

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 1860  
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 1885

&lt;210&gt; 5146

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5146

Pro	Ala	Thr	Ser	Glu	Lys	Glu	Ser	Ile	Leu	Leu	Phe	Pro	Asp	Leu	Arg
1				5					10					15	
Cys	Ala	Leu	Ala	Gly	His	Asn	Asp	Leu	Val	Glu	Ile	His	Leu	Ser	Gly
			20					25					30		
Arg	Leu	Gly	Val	Cys	Thr	Gly	Leu	Ala	Cys	Ala	Tyr	His	Leu	Leu	Cys
		35					40					45			
Thr	Pro	Pro	Thr	Pro	Cys	Ile	Pro	Thr	Pro	Gly	Leu	Val	Ala	Pro	Ala

50	55	60
Leu Gly Lys Val Ser Pro Cys Ala Cys Thr Arg Arg Gln Thr Glu Lys		
65	70	75
Ala Ala Gly Gly Leu Cys Cys Ser Ala Arg Gly Ser Ala Leu Pro Pro		80
	85	90
Ser Phe Leu Leu Leu Ile Ala Pro Val Cys Gly Ala Tyr Thr Pro Thr		95
	100	105
Ser Cys Asn Lys Ile Val Ala Ser Ala Lys Lys Pro Gly Ile Arg Thr		110
	115	120
Gly Ile Gln Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly		125
	130	135
Asn Pro Gly Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala		140
145	150	155
Arg Gly Ile Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile		160
	165	170
Lys Asp Gln Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro		175
	180	185
Met Gly Gly Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu		190
	195	200
Glu Pro Tyr Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly		205
	210	215
Tyr Tyr Tyr Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu		220
225	230	235
Ser Ile Val Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe		240
	245	250
Cys Asp Thr Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met		255
	260	265
Val Leu Gln Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro		270
	275	280
Lys Lys Gly His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser		285
	290	295
Gly Phe Leu Ile Phe Pro Ser Ala		300
305	310	

&lt;210&gt; 5147

&lt;211&gt; 2943

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5147

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 300  
 ctttatactg ccaagaaata cgcagtccca gccttggaag cacactgtgt agaattttctc  
 360  
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&lt;400&gt; 5150

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 Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr  
 65 70 75 80  
 Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu  
 85 90 95  
 Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly  
 100 105 110  
 Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro  
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&lt;210&gt; 5151

&lt;211&gt; 2273

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5151

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&lt;210&gt; 5152

&lt;211&gt; 324

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5152

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          35           40           45
Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
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Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
65           70           75           80
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
          85           90           95
Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
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Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
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Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
          130          135          140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
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Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
          165          170          175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
          180          185          190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
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Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
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Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
225          230          235          240
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
          245          250          255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
          260          265          270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
          275          280          285
Leu Ile Phe Cys Ile Lys Ile Phe Thr Lys Asn Asn Phe Phe Val Glu
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Lys Asn Pro Thr Ser Cys Gln Phe Pro Tyr Tyr Lys Cys Gly Ser Glu
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&lt;210&gt; 5153

&lt;211&gt; 640

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5153

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&lt;210&gt; 5154

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5154

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Ala	Cys	His	Arg	Trp	Leu	Gln	Glu	Gly	Ser	Thr	Leu	Gly	Gly	Thr	Gly
		35				40					45				
Glu	Leu	Ala	Phe	Gly	Ala	Asp	Thr	Leu	Leu	Thr	Leu	Pro	Phe	Leu	Leu
	50				55					60					
Gln	Gly	Val	Pro	Phe	Pro	Gln	Asn	Glu	Ala	Asn	Ala	Met	Asp	Val	Val
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Ile	Tyr	Ala	Trp	Ser	Ile	Gly	Gly	Phe	Thr	Ala	Thr	Trp	Ala	Ala	Met
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Ser	Tyr	Pro	Asp	Val	Ser	Ala	Met	Ile	Leu	Asp	Ala	Ser	Phe	Asp	Asp
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Leu	Val	Pro	Leu	Ala	Leu	Lys	Val	Met	Pro	Asp	Ser	Trp	Ser	Glu	Cys
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Leu	Phe														

&lt;210&gt; 5155

&lt;211&gt; 1402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5155

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&lt;210&gt; 5156

&lt;211&gt; 118

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5156

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Ser Gly Gly Leu Gln Trp Val Gln Leu Val Ala His Gly Ser Ala Gly
 35           40           45
Asp Asp Asn Gly Trp Leu Arg Cys His Arg Pro Pro Trp Gln Gly Leu
 50           55           60
Gly Asp Asn Glu Leu Asp Gly Cys Ser Gly Glu Val Asn Val Ser Gln
 65           70           75           80
Asp Phe Val Lys Thr Leu Leu Arg Ile Cys Asn Ala Ile Pro Ser Phe
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<210> 5157

<211> 1310

<212> DNA

<213> Homo sapiens

<400> 5157

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&lt;210&gt; 5160

&lt;211&gt; 849

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5160

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				20				25					30		
Asp	Trp	Gly	Asn	Glu	Gln	Leu	Gly	Leu	Asp	Leu	Val	Pro	Arg	Lys	Glu

4341

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 Tyr Gly Ser Lys Val Phe Asp Ser Leu Val His Ile Ile Asn Leu Leu  
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 Glu Ser His Phe Ala Gly Ala Leu Ala Tyr Arg Asp Leu Ile Lys Val  
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 Leu Lys Trp Tyr Val Asp Arg Ile Thr Glu Ala Glu Arg Gln Glu His  
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 Ile Gln Glu Val Leu Lys Ala Gln Glu Tyr Ile Phe Lys Tyr Ile Val  
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 Gln Cys Ile Gly Lys Thr Val Glu Ser Gln Leu Tyr Thr Asn Pro Asp  
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 Ser Arg Tyr Ile Leu Leu Pro Val Val Leu His His Leu His Ile His  
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                                  740                      745                      750  
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 Glu Ile Asp Val Ile Val Ala Ser Leu Leu Asp Ile Leu Leu Arg Thr  
                                  770                      775                      780  
 Ile Leu Glu Ile Thr Ser Arg Pro Gln Pro Ser Ser Ser Ala Met Arg  
 785                      790                      795                      800  
 Phe Gln Phe Gln Asp Val Thr Gly Glu Phe Val Ala Cys Leu Leu Ser  
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 Leu Leu Arg Gln Met Thr Asp Arg His Tyr Gln Gln Leu Leu Asp Ser  
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 Phe Asn Thr Lys Glu Glu Leu Arg Val Ser Asp Ile Leu Lys Cys Phe  
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&lt;210&gt; 5161

&lt;211&gt; 1645

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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 Asp Gln Leu Leu Gln Ile Asp Gly Arg Asp Cys Ala Gly Trp Ser Ser  
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 85 90 95  
 Val Val Val Arg Asp Arg Pro Phe Gln Arg Thr Val Thr Met His Lys  
 100 105 110  
 Asp Ser Met Gly His Val Gly Phe Val Ile Lys Lys Gly Lys Ile Val  
 115 120 125  
 Ser Leu Val Lys Gly Ser Ser Ala Ala Cys Asn Gly Leu Leu Thr Asn  
 130 135 140  
 His Tyr Val Cys Glu Val Asp Gly Gln Asn Val Ile Gly Leu Lys Asp  
 145 150 155 160  
 Lys Lys Ile Met Glu Ile Leu Ala Thr Ala Gly Asn Val Val Thr Leu  
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<211> 213

<212> PRT

<213> Homo sapiens

<400> 5164

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Val	Asp	Arg	Asp	Gly	Gln	Val	Tyr	Gln	Gly	Ser	Phe	His	Asp	Asn	Lys
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Arg	His	Gly	Pro	Gly	Gln	Met	Leu	Phe	Gln	Asn	Gly	Asp	Lys	Tyr	Asp
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Gly	Asp	Trp	Val	Arg	Asp	Arg	Arg	Gln	Gly	His	Gly	Val	Leu	Arg	Cys
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Gly Pro Glu Val Met Glu Val Ala Gln Gly Ser Pro Phe Ser Val Asn				
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Gln Gly Glu Met Thr				
210				

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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5166

&lt;211&gt; 521

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5166

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Thr	His	Leu	Ser	Leu	Gln	Asp	Arg	Ser	Glu	Met	Gln	Leu	Gln	Ser	Glu

4348



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		20						25					30		
Ser	Arg	Ala	Asp	Cys	Leu	Gly	Ala	Pro	Asn	Ile	Arg	Thr	Ala	Pro	Leu
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Leu	Gln	Thr	Ser	Val	Arg	Asn	Leu	Val	Pro	Ser	Ile	Leu	His	Thr	Ser
				85					90					95	
Tyr	His	Ala	Ile	Phe	Asn	Pro	Arg	Thr	Trp	Val	Leu	Leu	Cys	Pro	Cys
		100						105					110		
Asp	Ile	Trp	Gly	Thr	Gln	Gly	Pro	Glu	Lys	Gly	Arg	Lys	Ile	Thr	His
		115					120					125			
Ala	Gly	Thr	Leu	Ser	Pro	Gln	Val	Lys	Leu	Arg	Thr	Gly	Asn	Gly	Lys
		130				135					140				
Gln	Gly	Gly	Ser	Thr	Glu	Ala	Gly	Asn	Ser	Gly	Val	Ile	Ala	Trp	Leu
145					150					155					160
Ser	Leu	Glu	Cys	Thr	Pro	Ser	Thr	Ser	Thr	Gln	Ser	Ser	Pro	Gln	Leu
				165				170					175		
Thr	Leu	Pro	Ser	Ser	Ala	Ser	Ser	Ile	Ser	Ser	Arg	Glu	Thr	Ile	Leu
		180						185					190		
Ile	Ala	Ser	Pro	Phe	Pro	Thr									
		195													

&lt;210&gt; 5169

&lt;211&gt; 609

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5169

```

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120
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240
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300
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420
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480
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600
ttcaaccac
609

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<210> 5170  
 <211> 203  
 <212> PRT  
 <213> Homo sapiens

<400> 5170  
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 20 25 30  
 Gly Leu Gly Glu Ala Leu Gly Ala Val Glu Leu Ser Leu Ser Glu Phe  
 35 40 45  
 Leu Leu Leu Phe Thr Thr Ala Gly Ile Tyr Val Asp Gly Ala Gly Arg  
 50 55 60  
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp  
 65 70 75 80  
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp  
 85 90 95  
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys  
 100 105 110  
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr  
 115 120 125  
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp  
 130 135 140  
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe  
 145 150 155 160  
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln  
 165 170 175  
 Gln Lys Gln Gln Arg Arg Glu Met Leu Lys Asp Pro Phe Val Arg Ser  
 180 185 190  
 Lys Leu Ile Ser Pro Pro Thr Asn Phe Asn His  
 195 200

<210> 5171  
 <211> 2060  
 <212> DNA  
 <213> Homo sapiens

<400> 5171  
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 120  
 cacattcttt cttgtggacc accaaattga aggctttctt gtaattcaca agcagcagct  
 180  
 ctccagcatc tctccgtagc ctgggtgaag tcccagaagc tgggtgtgcat cattttccaa  
 240  
 ggtggcagag ctgcttgctc tgcagatcat tcctttgaga gaggagtaca agtgaagaaa  
 300  
 caaggaggca cttcctgtag gagcactgat gtgccttgct cacactcccc tctgagcttt  
 360  
 actggtaaga gagctccgac tgaacatgct gagcagttga gcacttttcc atcagcaaca  
 420

acagcgagga tggaaatgga aaggaaccga actaaaatgc atttcccttt gcagggcaga  
480  
gagctaagct cttaggaata gtgttataga aataagcacc ctaacttcaa ttctgaaaa  
540  
tggttggttaa tggagagaat tttggagttt cacttaatat tttcccatcg gtcgccataa  
600  
ataagtcttc aggcgctcct agaagagtcc cagcccaagg ctcgattaag gaccacactg  
660  
caggtctgag gctcactgct ctgagtcctg aacaccagag ccctgcagag agtggtgata  
720  
acacatcatc tctgcaaaga ggaacctctc ccccgccgc cacttcactc aggtttctac  
780  
tgagcagcaa ggacagcctg ggtttcaaat gccacttccc ctgctttagg gatccagggtg  
840  
tcctgatagc gtgaccctgc tgaggcaagg tatcaactcc gagagtgact gagtcaactga  
900  
gcgtggcaca tgaacaaaacg tcatgacaaa gattctctga gtgaagttaa caccacgtat  
960  
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1080  
gaatactcaa gtgctagctt agcagctttg ttcagtccag atcagagctg ttaggtaaag  
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1200  
acactagcgg agaatttata ttgtcagcct tgattaccat aggacaggca gaaaggcgat  
1260  
aatttgtatc ttttaatatata aaagaagctt ttaacttttc cagcctatta ttataactga  
1320  
gttatattca ctgtggctca aactaattgg cattgtggaa catttcttta ccttcaaagt  
1380  
tttctccacc aatcatttca gttctattgc agtcctgggtg ccatatgtcc cctgcaaatt  
1440  
gtgaaagtaa ttagtgacaa aatagcagcc tgctcctttt caatggcgaa actgtcggca  
1500  
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1560  
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1620  
cttttgaaag gaacagtaat ttgtgtggat attgttaaag tgtttaaaga atattttgac  
1680  
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1740  
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1800  
tgtatagaag ctgtgatata tagagtacat ttattgtgta aatgtttatg aatataattg  
1860  
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1920  
tttaaagtgt ttttatgtaa tagaaatcac gcaaaatagt gaaggattta aaatatgtat  
1980  
atgatacatg taaatgtaca aactttagaa agaaataaat ccaacaaatt tcaaaaaaaaa  
2040

aaaaaaaaaa aaaaaaaaaa  
2060

<210> 5172  
<211> 104  
<212> PRT  
<213> Homo sapiens

<400> 5172  
Met Leu Val Asn Gly Glu Asn Phe Gly Val Ser Leu Asn Ile Phe Pro  
1 5 10 15  
Ser Val Ala Ile Asn Lys Ser Ser Gly Ala Pro Arg Arg Val Pro Ala  
20 25 30  
Gln Gly Ser Ile Lys Asp His Thr Ala Gly Leu Arg Leu Thr Ala Leu  
35 40 45  
Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser  
50 55 60  
Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu  
65 70 75 80  
Leu Ser Ser Lys Asp Ser Leu Gly Phe Lys Cys His Phe Pro Cys Phe  
85 90 95  
Arg Asp Pro Gly Val Leu Ile Ala  
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<210> 5173  
<211> 557  
<212> DNA  
<213> Homo sapiens

<400> 5173  
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agaccaggcg ctggagacac agcagtgaat atactaacat tgtttctgcc ctcacggagc  
120  
tcacagtgtg acaggagac aaatagacct gtcagtagat aacatgaaaa taattggact  
180  
atgtgctgca gacacaatat cccaggtcta tgagaatgtc aatacagact tcacgtggga  
240  
aatggtgagg caataaggat cgtttccctt gatgaaatgg agcttgcaga agaaggcagg  
300  
gtcagttgtg gggagctctg gttggagggtg gagggagtgc attccaagct ggaggagctg  
360  
tccagggttc tggagactaa acggagcccc ctgggaactg tcttgagccc cgggtgctgaa  
420  
acagatcgcg gttctcttct cggacctccc gagaagcgct gtccggatat ttggtgctcc  
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ctttctggga aaatggc  
557

<210> 5174  
<211> 93  
<212> PRT

<213> Homo sapiens

<400> 5174

```

Met Glu Leu Ala Glu Glu Gly Arg Val Ser Cys Gly Glu Leu Trp Leu
 1           5           10           15
Glu Val Glu Gly Val His Ser Lys Leu Glu Glu Leu Ser Arg Val Leu
      20           25           30
Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
      35           40           45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
      50           55           60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
65           70           75           80
Arg Gln Thr Ser Pro Ser Leu Ser Leu Ser Gly Lys Met
      85           90

```

<210> 5175

<211> 272

<212> DNA

<213> Homo sapiens

<400> 5175

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ccatggcagc tccagagacc aggtggaggg gaaatcaccc cacgctcccg agcagagagc
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ttcggagcca gccagcctca ctgtgcgtgg cccacaacag ctgtctccat gtgtcacgtg
120
agggctgccc aacaccaggt agggcagcaa cgcccacgcc ctgcgcgggc acagcctccc
180
agaggtcact gccatgccgc actgaccgga gagagggcag tggtagagagg tgcattgccac
240
cccaggcttg ttccgaaggc cnnnnnnncc nc
272

```

<210> 5176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5176

```

Met Ala Ala Pro Glu Thr Arg Trp Arg Gly Asn His Pro Thr Leu Pro
 1           5           10           15
Ser Arg Glu Leu Arg Ser Gln Pro Ala Ser Leu Cys Val Ala His Asn
      20           25           30
Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
      35           40           45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
      50           55           60
Cys Arg Thr Asp Arg Arg Glu Gly Ser Gly Glu Arg Cys Met Pro Pro
65           70           75           80
Gln Ala Cys Ser Glu Gly Pro Xaa Xaa Xaa
      85           90

```

<210> 5177

<211> 637



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5177

```

ntcctagtga gtatcgagtt ggtcttatta tcgctgaac tgggagcctt tgtttcctgc
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gtgtcgcagg aagtgcggtt tcgggtacag ccgctaccag agtccctttc tcgcgaggcg
120
gaagaacccc gatcgctgag gagcaagggg gcgctaggaa aggggaactgg gttgcgacgg
180
tccggcgaga gagagctggg gtgctggggg gcggggaagt tggggagcag aggccgcttg
240
gtgtccgagt agggtaagac cgcaccgacc cagtccgtta ggaaagaagg gaaacgaggc
300
aattgtcggg cggatccccg gacggagggc taagggttggt tggaaggcgc tgctccccgg
360
atggcgaccg cagatactcc ggccccggcc tccagtggcc tctcgccgaa ggaagaaggg
420
gagcttgaag atggggaaat cagtgcgcac gataataaca gccagatacg ggtcggagc
480
agcagcagca gcagcggcgg cgggctgtta ccctatccgc ggcgaaggcc tcctcactcg
540
gccccggggc gtggatctgg cggaggcggg ggctcttctt cgtcatcgtc ctcttctcag
600
cagcagctga ggaatttctc acgctcgcgg cacgcgt
637

```

&lt;210&gt; 5178

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5178

```

Met Ala Thr Ala Asp Thr Pro Ala Pro Ala Ser Ser Gly Leu Ser Pro
1      5      10      15
Lys Glu Glu Gly Glu Leu Glu Asp Gly Glu Ile Ser Asp Asp Asp Asn
20      25      30
Asn Ser Gln Ile Arg Ser Arg Ser Ser Ser Ser Ser Gly Gly Gly
35      40      45
Leu Leu Pro Tyr Pro Arg Arg Arg Pro Pro His Ser Ala Arg Gly Gly
50      55      60
Gly Ser Gly Gly Gly Gly Ser Ser Ser Ser Ser Ser Ser Ser Gln
65      70      75      80
Gln Gln Leu Arg Asn Phe Ser Arg Ser Arg His Ala
85      90

```

&lt;210&gt; 5179

&lt;211&gt; 1527

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5179

```

ggaacacagg ccatgccgcc tcctctctct tgggattacc accagtgcac ctggaactat
60

```

gaagttgagc cggatgtaaa agcagtggat gcagggtttg atgggcatga cattccttat  
120  
gatgccatgt ggctggacat agagcacact gagggcaaga ggtacttcac ctgggacaaa  
180  
aacagattcc ctaaccccaa gaggatgcaa gagctgctca ggaacaaaaa gcgtaagctt  
240  
gtgggtcatca gtgatcccca catcaagatt gaacctgact actcagtata tgtgaaggcc  
300  
aaagatcagg gcttctttgt gaagaatcag gaaggggaag actttgaagg ggtgtgttgg  
360  
ccaggctctt cctcttacct ggatttcacc aatcccaagg tcagagagtg gtattcaagt  
420  
ctttttgctt tccctgttta tcagggatct acggacatcc tcttcctttg gaatgacatg  
480  
aatgagcctt ctgtcttttag agggccagag caaaccatgc agaagaatgc cattcatcat  
540  
ggcaattggg agcacagaga gctccacaac atctacgggt tttatcatca aatggctact  
600  
gcagaaggac tgataaaaac atctaaaggg aaggagagac cctttgttct tacacgttct  
660  
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720  
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780  
tgcggagctg acataggcgg gttcattggg aatccagaga cagagctgct agtgcgttgg  
840  
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900  
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960  
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1080  
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1380  
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1440  
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1500  
cccagcaagt gtgtgggtgga gaagatc  
1527

&lt;210&gt; 5180

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5180

Gly Thr Gln Ala Met Pro Pro Pro Leu Ser Trp Asp Tyr His Gln Cys  
 1 5 10 15  
 Thr Trp Asn Tyr Glu Val Glu Pro Asp Val Lys Ala Val Asp Ala Gly  
 20 25 30  
 Phe Asp Gly His Asp Ile Pro Tyr Asp Ala Met Trp Leu Asp Ile Glu  
 35 40 45  
 His Thr Glu Gly Lys Arg Tyr Phe Thr Trp Asp Lys Asn Arg Phe Pro  
 50 55 60  
 Asn Pro Lys Arg Met Gln Glu Leu Leu Arg Asn Lys Lys Arg Lys Leu  
 65 70 75 80  
 Val Val Ile Ser Asp Pro His Ile Lys Ile Glu Pro Asp Tyr Ser Val  
 85 90 95  
 Tyr Val Lys Ala Lys Asp Gln Gly Phe Phe Val Lys Asn Gln Glu Gly  
 100 105 110  
 Glu Asp Phe Glu Gly Val Cys Trp Pro Gly Leu Ser Ser Tyr Leu Asp  
 115 120 125  
 Phe Thr Asn Pro Lys Val Arg Glu Trp Tyr Ser Ser Leu Phe Ala Phe  
 130 135 140  
 Pro Val Tyr Gln Gly Ser Thr Asp Ile Leu Phe Leu Trp Asn Asp Met  
 145 150 155 160  
 Asn Glu Pro Ser Val Phe Arg Gly Pro Glu Gln Thr Met Gln Lys Asn  
 165 170 175  
 Ala Ile His His Gly Asn Trp Glu His Arg Glu Leu His Asn Ile Tyr  
 180 185 190  
 Gly Phe Tyr His Gln Met Ala Thr Ala Glu Gly Leu Ile Lys Arg Ser  
 195 200 205  
 Lys Gly Lys Glu Arg Pro Phe Val Leu Thr Arg Ser Phe Phe Ala Gly  
 210 215 220  
 Ser Gln Lys Tyr Gly Ala Val Trp Thr Gly Asp Asn Thr Ala Glu Trp  
 225 230 235 240  
 Ser Asn Leu Lys Ile Ser Ile Pro Met Leu Leu Thr Leu Ser Ile Thr  
 245 250 255  
 Gly Ile Ser Phe Cys Gly Ala Asp Ile Gly Gly Phe Ile Gly Asn Pro  
 260 265 270  
 Glu Thr Glu Leu Leu Val Arg Trp Tyr Gln Ala Gly Ala Tyr Gln Pro  
 275 280 285  
 Phe Phe Arg Gly His Ala Thr Met Asn Thr Lys Arg Arg Glu Pro Trp  
 290 295 300  
 Leu Phe Gly Glu Glu His Thr Arg Leu Ile Arg Glu Ala Ile Arg Glu  
 305 310 315 320  
 Arg Tyr Gly Leu Leu Pro Tyr Trp Tyr Ser Leu Phe Tyr His Ala His  
 325 330 335  
 Val Ala Ser Gln Pro Val Met Arg Pro Leu Trp Val Glu Phe Pro Asp  
 340 345 350  
 Glu Leu Lys Thr Phe Asp Met Glu Asp Glu Tyr Met Leu Gly Ser Ala  
 355 360 365  
 Leu Leu Val His Pro Val Thr Glu Pro Lys Ala Thr Thr Val Asp Val  
 370 375 380  
 Phe Leu Pro Gly Ser Asn Glu Val Trp Tyr Asp Tyr Lys Thr Phe Ala  
 385 390 395 400  
 His Trp Glu Gly Gly Cys Thr Val Lys Ile Pro Val Ala Leu Asp Thr

	405		410		415
Ile Pro Val Phe Gln Arg Gly Gly Ser Val Ile Pro Ile Lys Thr Thr					
	420		425		430
Val Gly Lys Ser Thr Gly Trp Met Thr Glu Ser Ser					
	435		440		

<210> 5181  
 <211> 4961  
 <212> DNA  
 <213> Homo sapiens

<400> 5181  
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 120  
 cgtatgattc tcaggaaaag tgggcaggat atctgactgt cagggtgtgcc ggcagaaggt  
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 240  
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 300  
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 360  
 tactggttca ctcaccggcc aaaggccttg caaccaccat gcaacctcct gatgcagtcg  
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 480  
 cttacccatt actatgatga tgcccggacc atgtaccagg tgttcgcccg tgggcttagc  
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 660  
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 720  
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 960  
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 1260

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1320  
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1380  
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1500  
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1680  
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1800  
gatccagaca ggacgaagga ggccctggac agcgatggct ggcttcacac tggagacatc  
1860  
ggaaaatggc tgccggcagg aactcttaaa attattgatc ggaaaaagca tatatttaaa  
1920  
cttgctcagg gagaatatgt tgcacccgag aagattgaga acatctacat ccggagccaa  
1980  
cctgtggcgc aaatctatgt ccatggggac agcttaaagg cctttttggt aggcattgtt  
2040  
gtgcctgacc ctgaagttat gccctcctgg gcccagaaga gaggaattga aggaacatat  
2100  
gcagatctct gcacaaataa ggatctgaag aaagccattt tggaagatat ggtgaggtta  
2160  
ggaaaagaaa gtggactcca ttcttttgag cagggttaaag ccattcacat ccattctgac  
2220  
atgttctcag ttcaaaatgg cttgctgaca ccaacactaa aagctaagag acctgagctg  
2280  
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2340  
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2400  
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&lt;211&gt; 697

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5182

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&lt;210&gt; 5184

&lt;211&gt; 395

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5184

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Met Ser Asn Met Leu Pro Glu Gly Leu Phe Pro Glu His Leu Ile Asp
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&lt;210&gt; 5185

&lt;211&gt; 1657

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5185

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&lt;210&gt; 5186

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 <212> PRT  
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aaaagaaccg aagaacctga tcgtgatgag cgtctaaaaa aggagaagca agaaagagaa  
900  
gaaagagaaa aagaacggga gagagaaagg gaagaaagag aaaggaaaag acgaagggaa  
960  
gaggaagaaa gagaaaaaga aagggtcgtg gacagagaaa gaagaaagag aagtcgttca  
1020  
cgaagtagac actcaagccg aacatcagac agaagatgca gcagggtctcg ggaccacaaa  
1080  
aggtcacgaa gtagagaaag aaggcggagc agaagtagag atcgacgaag aagcagaagc  
1140  
catgatcgat cagaaagaaa acacagatct cgaagtcggg atcgaagaag atcaaaaagc  
1200  
cgggatcgaa agtcatataa gcacaggagc aaaagtcggg acagagaaca agatagaaaa  
1260  
tccaaggaga aagaaaagag gggatctgat gataaaaaaa gtagtgtgaa gtccggtagt  
1320  
cgagaaaagc agagtgaaga cacaacact gaatcgaagg aaagtgatac taagaatgag  
1380  
gtcaatggga ccagtgaaga cattaaatct gaagtgcagc gtaagtatgc acagatgaag  
1440  
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1500  
gtcctgcaaa acatttttgag gtacattgtt ttgtctcagc tattttgtag cagactcgtg  
1560  
ccccattag tgtgcctctt tggaaattat cgccacatt tgtaatatag tcgccattga  
1620  
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1712

<210> 5188  
<211> 489  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 5188

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Met Ile Ser Ala Ala Gln Leu Leu Asp Glu Leu Met Gly Arg Asp Arg
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          20           25           30
Ser Val Cys Lys Tyr Tyr Leu Cys Gly Phe Cys Pro Ala Glu Leu Phe
          35           40           45
Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu
          50           55           60
Asn Leu Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly
65           70           75           80
Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val
          85           90           95
Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn
          100          105          110
Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys
          115          120          125
Ile Gln Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu
          130          135          140
Glu Leu Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys
145          150          155          160
Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr
          165          170          175
Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys
          180          185          190
Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val
          195          200          205
Asp Asp His Leu Met Gly Lys Gln His Met Gly Tyr Ala Lys Ile Lys
210          215          220
Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu
225          230          235          240
Pro Asp Arg Asp Glu Arg Leu Lys Lys Glu Lys Gln Glu Arg Glu Glu
          245          250          255
Arg Glu Lys Glu Arg Glu Arg Glu Arg Glu Glu Arg Glu Arg Lys Arg
          260          265          270
Arg Arg Glu Glu Glu Glu Arg Glu Lys Glu Arg Ala Arg Asp Arg Glu
          275          280          285
Arg Arg Lys Arg Ser Arg Ser Arg Ser Arg His Ser Ser Arg Thr Ser
          290          295          300
Asp Arg Arg Cys Ser Arg Ser Arg Asp His Lys Arg Ser Arg Ser Arg
305          310          315          320
Glu Arg Arg Arg Ser Arg Ser Arg Asp Arg Arg Ser Arg Ser His
          325          330          335
Asp Arg Ser Glu Arg Lys His Arg Ser Arg Ser Arg Asp Arg Arg Arg
          340          345          350
Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg
          355          360          365
Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser
          370          375          380
Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser
385          390          395          400
Glu Asp Thr Asn Thr Glu Ser Lys Glu Ser Asp Thr Lys Asn Glu Val
          405          410          415
Asn Gly Thr Ser Glu Asp Ile Lys Ser Glu Val Gln Arg Lys Tyr Ala

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			420					425					430				
Gln	Met	Lys	Met	Glu	Leu	Ser	Arg	Val	Arg	Arg	His	Thr	Lys	Ala	Ser		
		435						440					445				
Ser	Glu	Gly	Lys	Asp	Ser	Val	Val	Leu	Gln	Asn	Ile	Leu	Arg	Tyr	Ile		
		450						455				460					
Val	Leu	Ser	Gln	Leu	Phe	Cys	Ser	Arg	Leu	Val	Pro	Pro	Leu	Val	Cys		
465					470					475					480		
Leu	Phe	Gly	Asn	Tyr	Arg	Pro	His	Leu									
					485												

&lt;210&gt; 5189

&lt;211&gt; 323

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5189

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120  
aatccaaaaa taacaaaatg tttagcaatt caggtaatgt caagcagtat tcaaacacat  
180  
gaagttaatc attccttaat tcctgtttat ttatatttca tttttgcttt ctttttactc  
240  
catgtgttat tcctacagaa gtcacaagtt aaatgttttt ggggaacttt gggggggggg  
300  
gacaaacatc catgtgctgc taa  
323

&lt;210&gt; 5190

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5190

Met	Ser	His	Cys	Thr	Trp	Pro	Gly	Glu	Ile	Val	Phe	Ile	Thr	Tyr	Asp		
1				5					10					15			
Lys	Cys	Leu	Ser	Asn	Ser	Trp	Leu	Glu	Ser	Gly	Leu	Thr	Ile	Asn	Asn		
		20						25					30				
Trp	Asn	Pro	Lys	Ile	Thr	Lys	Cys	Leu	Ala	Ile	Gln	Val	Met	Ser	Ser		
		35					40					45					
Ser	Ile	Gln	Thr	His	Glu	Val	Asn	His	Ser	Leu	Ile	Pro	Val	Tyr	Leu		
	50					55					60						
Tyr	Phe	Ile	Phe	Ala	Phe	Phe	Leu	Leu	His	Val	Leu	Phe	Leu	Gln	Lys		
65					70				75					80			
Ser	Gln	Val	Lys	Cys	Phe	Trp	Gly	Thr	Leu	Gly	Gly	Gly	Asp	Lys	His		
			85					90						95			
Pro	Cys	Ala	Ala														
			100														

&lt;210&gt; 5191

&lt;211&gt; 1632

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



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120  
tccttctgac agcagataac atgtcgctcg cggcgtcagc aagaggcgca tgcgccttgc  
180  
cgtgggagggc cgggtgcgca ggactggaac gcggttcctc cttcttcccc gccccgcccc  
240  
gcttcggcg gaagcggcct caacaaggga aactttattg ttcccgtggg gcagtcgagg  
300  
atgtcggatga attacgcggc ggggctgtcg ccgtacgcgg acaagggcaa gtgcggcctc  
360  
ccggagatct tcgaccccc ggaggagctg gagcggaagg tgtgggaact ggcgaggctg  
420  
gtctggcagt cttccagtgt ggtgttcac acgggtgccg gcatcagcac tgcctctggc  
480  
atccccgact tcaggggtcc ccacggagtc tggaccatgg aggagcgagg tctggcccc  
540  
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600  
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cgctcaggct tccccagga caaactggca gagctccacg ggaacatgtt tgtggaagaa  
720  
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780  
gccacgggccc ggctctgcac cgtggctaag gcaagggggc tgcgagcctg caggggagggc  
840  
tgcgagggccc ctgaggactc tcctcagctt cctcattgca ggggagagct gagggacacc  
900  
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960  
aggaacgcgc acctgtccat cacgctgggt acatcgctgc agatccggcc cagcgggaac  
1020  
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1080  
aagcacgacc gccatgctga cctccgcac catggctacg ttgacgaggt catgaccgg  
1140  
ctcatgaagc acctggggct ggagatcccc gcctgggacg gccccctgtg gctggagagg  
1200  
gcgctgccac ccctgccccg cccgcccacc cccaagctgg agcccaagga ggaatctccc  
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1320  
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1380  
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<210> 5192  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 5192  
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 Lys Cys Gly Leu Pro Glu Ile Phe Asp Pro Pro Glu Glu Leu Glu Arg  
 20 25 30  
 Lys Val Trp Glu Leu Ala Arg Leu Val Trp Gln Ser Ser Ser Val Val  
 35 40 45  
 Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe  
 50 55 60  
 Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro  
 65 70 75 80  
 Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met  
 85 90 95  
 Ala Leu Val Gln Leu Glu Arg Val Gly Leu Leu Arg Phe Leu Val Ser  
 100 105 110  
 Gln Asn Val Asp Gly Leu His Val Arg Ser Gly Phe Pro Arg Asp Lys  
 115 120 125  
 Leu Ala Glu Leu His Gly Asn Met Phe Val Glu Glu Cys Ala Lys Cys  
 130 135 140  
 Lys Thr Gln Tyr Val Arg Asp Thr Val Val Gly Thr Met Gly Leu Lys  
 145 150 155 160  
 Ala Thr Gly Arg Leu Cys Thr Val Ala Lys Ala Arg Gly Leu Arg Ala  
 165 170 175  
 Cys Arg Gly Gly Cys Glu Ala Pro Glu Asp Ser Pro Gln Leu Pro His  
 180 185 190  
 Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu  
 195 200 205  
 Pro Asp Arg Asp Leu Ala Leu Ala Asp Glu Ala Ser Arg Asn Ala Asp  
 210 215 220  
 Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln Ile Arg Pro Ser Gly Asn  
 225 230 235 240  
 Leu Pro Leu Ala Thr Lys Arg Arg Gly Gly Arg Leu Val Ile Val Asn  
 245 250 255  
 Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly  
 260 265 270  
 Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu  
 275 280 285  
 Ile Pro Ala Trp Asp Gly Pro Arg Val Leu Glu Arg Ala Leu Pro Pro  
 290 295 300  
 Leu Pro Arg Pro Pro Thr Pro Lys Leu Glu Pro Lys Glu Glu Ser Pro  
 305 310 315 320  
 Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys  
 325 330 335  
 Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro

340 345 350  
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 355 360 365  
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<210> 5193  
 <211> 554  
 <212> DNA  
 <213> Homo sapiens

<400> 5193  
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 120  
 cagcagctct gtgtcccggc atggccactg tggggcagag acacagcagg tcccacatct  
 180  
 ctgtgccctg cagaccctgc agccctgggg atgctgggtct gggacggacc cctagatatc  
 240  
 acacagccga gaggtaggtc agcgctttaa gatgctgata ccgctgggtc agctcctgga  
 300  
 gcagaattct caggggtgat ttccagcaac gcctcctggg agggtcagca ggggctgggg  
 360  
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 420  
 cgcttgcca gcctcatcca gcctgggtgc tccggtgcca cgcgctaaca cttcagtgc  
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 540  
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<210> 5194  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

<400> 5194  
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 Phe Pro Ala Thr Pro Pro Gly Arg Val Ser Arg Gly Trp Gly Pro Trp  
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 Gly Gly Leu Arg Glu Val Cys Leu Cys Gln Ala Cys Ala Ala Ser Gly  
 35 40 45  
 Gly Gly Ala Cys Pro Ala Ser Ser Ser Leu Val Ser Pro Val Pro Arg  
 50 55 60  
 Ala Asn Thr Phe Ser Ala Arg Ser Gly Thr Arg Leu Glu Gly Pro Ala  
 65 70 75 80  
 Leu Pro Arg Pro Arg Leu Gln Pro Asp Ala Ala Ser Thr Arg  
 85 90

<210> 5195  
 <211> 964

<212> DNA  
<213> Homo sapiens

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120  
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180  
tgtgtcatct accatgagct ccagctctcc ctggcctgca aggtggccga caaggtgctg  
240  
gaggggcagc tcctggagac catcagccag ctctacctgt ccctgggcac cgagcggggc  
300  
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360  
aaagagaagg aggcgcagtc ctggctgcaa gcagggaaga tctattacat cttgcggcag  
420  
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480  
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720  
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780  
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840  
ctggagtttg acgaggagac cctctactac gtgaagggtg acctggtgct cggtgacatc  
900  
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960  
gccg  
964

<210> 5196  
<211> 267  
<212> PRT  
<213> Homo sapiens

<400> 5196  
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Leu Ala Cys Lys Val Ala Asp Lys Val Leu Glu Gly Gln Leu Leu Glu  
20 25 30  
Thr Ile Ser Gln Leu Tyr Leu Ser Leu Gly Thr Glu Arg Ala Tyr Lys  
35 40 45  
Ser Ala Leu Asp Tyr Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu  
50 55 60  
Gln Lys Lys Glu Lys Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile

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65              70              75              80
Tyr Tyr Ile Leu Arg Gln Ser Glu Leu Val Asp Leu Tyr Ile Gln Val
      85              90              95
Ala Gln Asn Val Ala Leu Tyr Thr Gly Asp Pro Asn Leu Gly Leu Glu
      100             105             110
Leu Phe Glu Ala Ala Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg
      115             120             125
Glu Lys Ala Val Ser Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val
      130             135             140
Thr Thr Gly Asn Arg Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu Val
145             150             155             160
Ala Leu Leu Ala Thr Leu Glu Glu Pro Gln Glu Gly Leu Glu Phe Ala
      165             170             175
His Met Ala Leu Ala Leu Ser Ile Thr Leu Gly Asp Arg Leu Asn Glu
      180             185             190
Arg Val Ala Tyr His Arg Leu Ala Ala Leu Gln His Arg Leu Gly His
      195             200             205
Gly Glu Leu Ala Glu His Phe Tyr Leu Lys Ala Leu Ser Leu Cys Asn
      210             215             220
Ser Pro Leu Glu Phe Asp Glu Glu Thr Leu Tyr Tyr Val Lys Val Tyr
225             230             235             240
Leu Val Leu Gly Asp Ile Ile Phe Tyr Asp Leu Lys Asp Pro Phe Asp
      245             250             255
Ala Ala Gly Tyr Tyr Gln Leu Ala Leu Ala Ala
      260             265

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<210> 5197  
 <211> 1045  
 <212> DNA  
 <213> Homo sapiens

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<400> 5197
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120
ctcatgatcc gccacactca gcctcgcaaa gtgctgggat tacaggcatg agccaccacg
180
tccggccacc actgactttt tcattctttc tcattcttcc tgggccctcc tgctgttgta
240
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300
gaagaagttg tgaaggacgg caggccaaag tggaacagtt gggaccctag gaggcagcgg
360
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420
gactgggctg aagcagtggg tgcgtcccgt gtggtccgaa aggcgccaga ccctcagcca
480
ccgcccagga agcttcatgg ctgggcacca ggccctgact accagaagtc atcaatgggc
540
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600
ttcattcagt cagagatgtc cgaggcggtg gagcgagccc gaaagcgccg ggaagaagag
660

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gagcgccgag cccgggagga gaggctggcc gcctgtgctg ccaaactcaa gcagctggac  
 720  
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 780  
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 840  
 ggctccccag aattccctgc ccaagagacc cccaccacat tcccagaaga ggcacccaca  
 900  
 gtgtccccag cagtggcaca gagcaacagc agtgaggaag aggccagaga ggctgggtcc  
 960  
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 1045

<210> 5198

<211> 283

<212> PRT

<213> Homo sapiens

<400> 5198

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Pro	His	Glu	Glu	Val	Asp	Tyr	Ser	Glu	Lys	Leu	Lys	Phe	Ser	Asp	Asp
			20					25					30		
Glu	Glu	Glu	Glu	Glu	Val	Val	Lys	Asp	Gly	Arg	Pro	Lys	Trp	Asn	Ser
			35				40					45			
Trp	Asp	Pro	Arg	Arg	Gln	Arg	Gln	Leu	Ser	Met	Ser	Ser	Ala	Asp	Ser
	50					55					60				
Ala	Asp	Ala	Lys	Arg	Thr	Arg	Glu	Glu	Gly	Lys	Asp	Trp	Ala	Glu	Ala
65					70					75				80	
Val	Gly	Ala	Ser	Arg	Val	Val	Arg	Lys	Ala	Pro	Asp	Pro	Gln	Pro	Pro
				85					90					95	
Pro	Arg	Lys	Leu	His	Gly	Trp	Ala	Pro	Gly	Pro	Asp	Tyr	Gln	Lys	Ser
			100					105					110		
Ser	Met	Gly	Ser	Met	Phe	Arg	Gln	Ser	Ile	Glu	Asp	Lys	Glu	Asp	
	115					120					125				
Lys	Pro	Pro	Pro	Arg	Gln	Lys	Phe	Ile	Gln	Ser	Glu	Met	Ser	Glu	Ala
	130					135					140				
Val	Glu	Arg	Ala	Arg	Lys	Arg	Arg	Glu	Glu	Glu	Glu	Arg	Arg	Ala	Arg
145					150					155					160
Glu	Glu	Arg	Leu	Ala	Ala	Cys	Ala	Ala	Lys	Leu	Lys	Gln	Leu	Asp	Gln
				165					170					175	
Lys	Cys	Lys	Gln	Ala	Arg	Lys	Ala	Gly	Glu	Ala	Arg	Lys	Gln	Ala	Glu
			180					185					190		
Lys	Glu	Val	Pro	Trp	Ser	Pro	Ser	Ala	Glu	Lys	Ala	Ser	Pro	Gln	Glu
		195					200					205			
Asn	Gly	Pro	Ala	Val	His	Lys	Gly	Ser	Pro	Glu	Phe	Pro	Ala	Gln	Glu
	210					215					220				
Thr	Pro	Thr	Thr	Phe	Pro	Glu	Glu	Ala	Pro	Thr	Val	Ser	Pro	Ala	Val
225					230					235					240
Ala	Gln	Ser	Asn	Ser	Ser	Glu	Glu	Glu	Ala	Arg	Glu	Ala	Gly	Ser	Pro
				245					250					255	
Ala	Gln	Glu	Phe	Lys	Tyr	Gln	Lys	Ser	Leu	Pro	Pro	Arg	Phe	Gln	Arg

260  
 Gln Gln Gln Gln Gln Gln Gln Gln Glu Gln Leu Tyr  
 275 280

270

<210> 5199  
 <211> 1332  
 <212> DNA  
 <213> Homo sapiens

<400> 5199  
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 120  
 cagccgctga ggtgactttc aacggcagac cgtctcctga gcgccccagg tagaatttca  
 180  
 aaagtctccg ggaccattat ggcagtcaag tggacgggtg ggcattcttc tectgtcctc  
 240  
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 300  
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 360  
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 420  
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 480  
 gaagaaatca attgtctttc attgaatcaa acggaaaacc tgctggcttc tgctgacgac  
 540  
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 660  
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 720  
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<213> Homo sapiens

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&lt;210&gt; 5206

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5206

His	Ser	Leu	Ala	Ser	Val	Leu	Ser	Ser	Pro	Gly	His	Pro	Ser	Arg	His
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		20						25					30		
Asp	Arg	Arg	Lys	Leu	Arg	Ala	Asp	Val	Thr	Thr	Ala	Phe	Pro	Thr	Leu
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Gly	Thr	Asp	Gln	Val	Ser	Glu	Leu	Val	Pro	Gly	Lys	Glu	Glu	Leu	Asn



50		55		60
Ile Val Lys Leu Tyr	Ala His Lys Gly Asp	Ala Val Thr Val Tyr Val		
65	70	75	80	
Ser Gly Gly Asn Pro	Ile Leu Phe Glu Leu Glu Lys Asn Leu Tyr Pro			
	85	90	95	
Thr Val Tyr Thr Leu Trp	Ser Tyr Pro Asp Leu Leu Pro Thr Phe Thr			
	100	105	110	
Thr Trp Pro Leu Val Leu Glu Lys Leu Val Gly Gly Ala Asp Leu Met				
	115	120	125	
Leu Pro Gly Leu Val Met Pro Pro Ala Gly Leu Pro Gln Val Gln Lys				
	130	135	140	
Gly Asp Leu Cys Ala Ile Ser Leu Val Gly Asn Arg Ala Pro Val Ala				
145	150	155	160	
Ile Gly Val Ala Ala Met Ser Thr Ala Glu Met Leu Thr Ser Gly Leu				
	165	170	175	
Lys Gly Arg Gly Phe Ser Val Leu His Thr Tyr Gln Asp His Leu Trp				
	180	185	190	
Arg Ser Gly Asn Lys Ser Ser Pro Pro Ser Ile Ala Pro Leu Ala Leu				
	195	200	205	
Asp Ser Ala Asp Leu Ser Glu Glu Lys Gly Ser Val Gln Met Asp Ser				
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 <211> 594  
 <212> DNA  
 <213> Homo sapiens

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 480  
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 594

<210> 5208

<211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 5208

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      20           25           30
Cys Val Pro Thr Thr Ala Arg Arg Leu Tyr Leu Pro Ala Val Val Met
      35           40           45
Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser
      50           55           60
Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg
65           70           75           80
Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys
      85           90           95
Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu
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Thr Arg Val Ile Gly Thr Ser Glu Thr Pro Ile Ile Ile Val Gly Asn
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Lys Arg Asp Leu Gln Arg Gly Arg
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<400> 5209

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 Ala Leu Leu Ile Leu Tyr Ala Leu Leu Ser Arg Leu Thr Gly Ser Arg  
 35 40 45  
 Ala Ser Gly Ala Gln Leu Glu Ala Lys Val Arg Gly Leu Glu Arg Gln  
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 <211> 602  
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 <213> Homo sapiens

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602

&lt;210&gt; 5212

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5212

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		20						25					30		
Arg	Ile	Lys	Ile	Asn	Glu	Glu	Phe	Lys	Asn	Asn	Lys	Ser	Glu	Thr	Ser
		35					40					45			
Ser	Lys	Lys	Ile	Glu	Glu	Leu	Met	Lys	Ile	Gly	Ser	Asp	Val	Glu	Leu
		50				55					60				
Leu	Leu	Arg	Thr	Ser	Val	Ile	Gln	Gly	Ile	His	Thr	Asp	His	Asn	Thr
65					70					75				80	
Leu	Lys	Leu	Val	Pro	Arg	Lys	Asp	Leu	Leu	Val	Glu	Asn	Val	Pro	Tyr
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Cys	Asp	Ala	Pro	Thr	Gln	Lys	Gln								
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&lt;210&gt; 5213

&lt;211&gt; 4387

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5213

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&lt;210&gt; 5214

&lt;211&gt; 1364

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5214

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			20					25					30		
Glu	Lys	Thr	Lys	Leu	Ile	Ser	Cys	Leu	Gly	Ala	Phe	Arg	Gln	Phe	Trp
			35				40					45			
Gly	Gly	Leu	Ser	Gln	Glu	Ser	His	Glu	Gln	Cys	Ile	Gln	Trp	Ile	Val
			50			55					60				
Lys	Phe	Ile	His	Gly	Gln	His	Ser	Pro	Lys	Arg	Ile	Ser	Phe	Leu	Tyr

65					70					75					80
Asp	Cys	Leu	Ala	Met	Ala	Val	Glu	Thr	Gly	Leu	Leu	Pro	Pro	Arg	Leu
				85					90					95	
Val	Cys	Glu	Ser	Leu	Ile	Asn	Ser	Asp	Thr	Leu	Glu	Trp	Glu	Arg	Thr
			100					105					110		
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Val	Leu	Glu	Gln	Pro	Tyr	Ser	Arg	Asp	Met	Val	Cys	Asn	Met	Leu	Gly
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Leu	Asn	Lys	Gln	His	Lys	Gln	Arg	Cys	Pro	Val	Leu	Glu	Asp	Gln	Leu
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Val	Asp	Leu	Val	Val	Tyr	Ala	Met	Glu	Arg	Ser	Glu	Thr	Glu	Glu	Lys
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Phe	Asp	Asp	Gly	Gly	Thr	Ser	Gln	Leu	Leu	Trp	Gln	His	Leu	Ser	Ser
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Gln	Leu	Ile	Phe	Phe	Val	Leu	Phe	Gln	Phe	Ala	Ser	Phe	Pro	His	Met
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Val	Leu	Ser	Leu	His	Gln	Lys	Leu	Ala	Gly	Arg	Gly	Leu	Ile	Lys	Gly
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Arg	Asp	His	Leu	Met	Trp	Val	Leu	Leu	Gln	Phe	Ile	Ser	Gly	Ser	Ile
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Gln	Lys	Asn	Ala	Leu	Ala	Asp	Phe	Leu	Pro	Val	Met	Lys	Leu	Phe	Asp
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Leu	Leu	Tyr	Pro	Glu	Lys	Glu	Tyr	Ile	Pro	Val	Pro	Asp	Ile	Asn	Lys
			405						410					415	
Pro	Gln	Ser	Thr	His	Ala	Phe	Ala	Met	Thr	Cys	Ile	Trp	Ile	His	Leu
			420					425					430		
Asn	Arg	Lys	Ala	Gln	Asn	Asp	Asn	Ser	Lys	Leu	Gln	Ile	Pro	Ile	Pro
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His	Ser	Leu	Arg	Leu	His	His	Glu	Phe	Leu	Gln	Gln	Ser	Leu	Arg	His
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Lys	Ser	Leu	Gln	Met	Asn	Asp	Tyr	Lys	Ile	Ala	Leu	Leu	Cys	Asn	Ala
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Tyr	Ser	Thr	Asn	Ser	Glu	Cys	Val	Thr	Leu	Pro	Met	Gly	Ala	Leu	Val
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Glu	Thr	Ile	Tyr	Gly	Asn	Gly	Ile	Met	Arg	Leu	Pro	Leu	Pro	Gly	Thr



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Asn Cys Met Ala Ser Ala Ser Ile Thr Pro Leu Pro Met Asn Leu Leu					
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Asp Ser Leu Thr Val His Ala Lys Met Ser Leu Ile His Ser Ile Ala					
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Thr Arg Val Ile Lys Leu Ala His Ala Lys Ser Ser Val Ala Leu Ala					
545		550		555	560
Pro Ala Leu Val Glu Thr Tyr Ser Arg Leu Leu Val Tyr Met Glu Ile					
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Glu Ser Leu Gly Ile Lys Gly Phe Ile Ser Gln Leu Leu Pro Thr Val					
	580		585		590
Phe Lys Ser His Ala Trp Gly Ile Leu His Thr Leu Leu Glu Met Phe					
	595		600		605
Ser Tyr Arg Met His His Ile Gln Pro His Tyr Arg Val Gln Leu Leu					
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Ser His Leu His Thr Leu Ala Ala Val Ala Gln Thr Asn Gln Asn Gln					
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Leu His Leu Cys Val Glu Ser Thr Ala Leu Arg Leu Ile Thr Ala Leu					
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Gly Ser Ser Glu Val Gln Pro Gln Phe Thr Arg Phe Leu Ser Asp Pro					
	660		665		670
Lys Thr Val Leu Ser Ala Glu Ser Glu Glu Leu Asn Arg Ala Leu Ile					
	675		680		685
Leu Thr Leu Ala Arg Ala Thr His Val Thr Asp Phe Phe Thr Gly Ser					
	690		695		700
Asp Ser Ile Gln Gly Thr Trp Cys Lys Asp Ile Leu Gln Thr Ile Met					
705		710		715	720
Ser Phe Thr Pro His Asn Trp Ala Ser His Thr Leu Ser Cys Phe Pro					
	725		730		735
Gly Pro Leu Gln Ala Phe Phe Lys Gln Asn Asn Val Pro Gln Glu Ser					
	740		745		750
Arg Phe Asn Leu Lys Lys Asn Val Glu Glu Glu Tyr Arg Lys Trp Lys					
	755		760		765
Ser Met Ser Asn Glu Asn Asp Ile Ile Thr His Phe Ser Met Gln Gly					
	770		775		780
Ser Pro Pro Leu Phe Leu Cys Leu Leu Trp Lys Met Leu Leu Glu Thr					
785		790		795	800
Asp His Ile Asn Gln Ile Gly Tyr Arg Val Leu Glu Arg Ile Gly Ala					
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Arg Ala Leu Val Ala His Val Arg Thr Phe Ala Asp Phe Leu Val Tyr					
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Glu Phe Ser Thr Ser Ala Gly Gly Gln Gln Leu Asn Lys Cys Ile Glu					
	835		840		845
Ile Leu Asn Asp Met Val Trp Lys Tyr Asn Ile Val Thr Leu Asp Arg					
	850		855		860
Leu Ile Leu Cys Leu Ala Met Arg Ser His Glu Gly Asn Glu Ala Gln					
865		870		875	880
Val Cys Tyr Phe Ile Ile Gln Leu Leu Leu Leu Lys Pro Asn Asp Phe					
	885		890		895
Arg Asn Arg Val Ser Asp Phe Val Lys Glu Asn Ser Pro Glu His Trp					
	900		905		910
Leu Gln Asn Asp Trp His Thr Lys His Met Asn Tyr His Lys Lys Tyr					
	915		920		925
Pro Glu Lys Leu Tyr Phe Glu Gly Leu Ala Glu Gln Val Asp Pro Pro					

930	935	940
Val Gln Ile Gln Ser Pro Tyr Leu Pro Ile Tyr Phe Gly Asn Val Cys		
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Leu Arg Phe Leu Pro Val Phe Asp Ile Val Ile His Arg Phe Leu Glu		960
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Leu Leu Pro Val Ser Lys Ser Leu Glu Thr Leu Leu Asp His Leu Gly		975
	980	985
Gly Leu Tyr Lys Phe His Asp Arg Pro Val Thr Tyr Leu Tyr Asn Thr		990
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Leu His Tyr Tyr Glu Met His Leu Arg Asp Arg Ala Phe Leu Lys Arg		1005
	1010	1015
Lys Leu Val His Ala Ile Ile Gly Ser Leu Lys Asp Asn Arg Pro Gln		1020
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Gly Trp Cys Leu Ser Asp Thr Tyr Leu Lys Cys Ala Met Asn Ala Arg		1040
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Glu Glu Asn Pro Trp Val Pro Asp Asp Thr Tyr Tyr Cys Arg Leu Ile		1055
	1060	1065
Gly Arg Leu Val Asp Thr Met Ala Gly Lys Ser Pro Gly Pro Phe Pro		1070
	1075	1080
Asn Cys Asp Trp Arg Phe Asn Glu Phe Pro Asn Pro Ala Ala His Ala		1085
	1090	1095
Leu His Val Thr Cys Val Glu Leu Met Ala Leu Ala Val Ser Gly Lys		1100
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Glu Val Gly Asn Ala Leu Leu Asn Val Val Leu Lys Ser Gln Pro Leu		1120
	1125	1130
Val Pro Arg Glu Asn Ile Thr Ala Trp Met Asn Ala Ile Gly Leu Ile		1135
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Val Ser Val Ile Ser Ser Pro Ser Leu Thr Ser Glu Thr Glu Trp Val		1165
	1170	1175
Gly Tyr Pro Phe Arg Leu Phe Asp Phe Thr Ala Cys His Gln Ser Tyr		1180
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Ser Glu Met Ser Cys Ser Tyr Thr Leu Ala Leu Ala His Ala Val Trp		1200
	1205	1210
His His Ser Ser Ile Gly Gln Leu Ser Leu Ile Pro Lys Phe Leu Thr		1215
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	1235	1240
Tyr His Leu Val Gly Pro Phe Leu Gln Arg Phe Gln Gln Glu Arg Thr		1245
	1250	1255
Arg Cys Met Ile Glu Ile Gly Val Ala Phe Tyr Asp Met Leu Leu Asn		1260
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Val Asp Gln Cys Ser Thr His Leu Asn Tyr Met Asp Pro Ile Cys Asp		1280
	1285	1290
Phe Leu Tyr His Met Lys Tyr Met Phe Thr Gly Asp Ser Val Lys Glu		1295
	1300	1305
Gln Val Glu Lys Ile Ile Cys Asn Leu Lys Pro Ala Leu Lys Leu Arg		1310
	1315	1320
Leu Arg Phe Ile Thr His Ile Ser Lys Met Glu Pro Ala Ala Val Pro		1325
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Pro Gln Ala Met Asn Ser Gly Ser Pro Ala Pro Gln Ser Asn Gln Val		1340
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Asp Thr Leu Thr		1360

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 <211> 548  
 <212> DNA  
 <213> Homo sapiens

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<210> 5216  
 <211> 83  
 <212> PRT  
 <213> Homo sapiens

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 Val Asp Glu Ala Ala Ala Gly Xaa Glu Arg Thr Asp Cys Ser Ser Glu  
 35 40 45  
 Arg Arg Ser Ala Val Gly Ser Met Leu Ser Asp Ser Ile Thr Pro His  
 50 55 60  
 Arg Glu Ile Phe His Glu Arg Lys Ser Pro Ser Leu Trp Pro Thr Phe  
 65 70 75 80  
 Leu Trp Ser

<210> 5217  
 <211> 4189  
 <212> DNA  
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<400> 5217

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&lt;210&gt; 5218

&lt;211&gt; 541

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5218

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		20						25					30		
Ser	Thr	Leu	Arg	Cys	Cys	Ser	Gly	Asn	Ser	Ser	Asp	Trp	Leu	Gly	Gly
		35					40				45				
Ser	Pro	Gly	Ala	Ala	Pro	Gly	Thr	Leu	Cys	Cys	Phe	Leu	Trp	Pro	Arg
	50					55					60				
Val	Gly	Thr	Gly	Leu	Cys	Pro	Gly	Leu	Ser	Leu	Pro	Gln	Pro	His	Leu
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Pro	His	Cys	Gln	Pro	Gln	Ser	Leu	Pro	Ala	Xaa	Ala	Arg	Val	Leu	Ser
			85					90						95	
Ser	Ser	Glu	Thr	Pro	Ala	Arg	Thr	Leu	Pro	Phe	Thr	Thr	Gly	Leu	Ile
		100						105					110		
Tyr	Asp	Ser	Val	Met	Leu	Lys	His	Gln	Cys	Ser	Cys	Gly	Asp	Asn	Ser

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Gln Glu Arg Gly Leu Arg Ser	Gln Cys Glu Cys Leu Arg Gly Arg Lys	
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Ala Ser Leu Glu Glu Leu Gln Ser Val His Ser Glu Arg His Val Leu		160
165	170	175
Leu Tyr Gly Thr Asn Pro Leu Ser Arg Leu Lys Leu Asp Asn Gly Lys		190
180	185	190
Leu Ala Gly Leu Leu Ala Gln Arg Met Phe Val Met Leu Pro Cys Gly		205
195	200	205
Gly Val Gly Val Asp Thr Asp Thr Ile Trp Asn Glu Leu His Ser Ser		220
210	215	220
Asn Ala Ala Arg Trp Ala Ala Gly Ser Val Thr Asp Leu Ala Phe Lys		240
225	230	235
Val Ala Ser Arg Glu Leu Lys Asn Gly Phe Ala Val Val Arg Pro Pro		255
245	250	255
Gly His His Ala Asp His Ser Thr Ala Met Gly Phe Cys Phe Phe Asn		270
260	265	270
Ser Val Ala Ile Ala Cys Arg Gln Leu Gln Gln Gln Ser Lys Ala Ser		285
275	280	285
Lys Ile Leu Ile Val Asp Trp Asp Val His His Gly Asn Ala Thr Gln		300
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Gln Thr Phe Tyr Gln Asp Pro Ser Val Leu Tyr Ile Ser Leu His Arg		320
305	310	315
His Asp Asp Gly Asn Phe Phe Pro Gly Ser Gly Ala Val Asp Glu Val		335
325	330	335
Gly Ala Gly Ser Gly Glu Gly Phe Asn Val Asn Val Ala Trp Ala Gly		350
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Gly Leu Asp Pro Pro Met Gly Asp Pro Glu Tyr Leu Ala Ala Phe Arg		365
355	360	365
Ile Val Val Met Pro Ile Ala Arg Glu Phe Ser Pro Asp Leu Val Leu		380
370	375	380
Val Ser Ala Gly Phe Asp Ala Ala Glu Gly His Pro Ala Pro Leu Gly		400
385	390	395
Gly Tyr His Val Ser Ala Lys Cys Phe Gly Tyr Met Thr Gln Gln Leu		415
405	410	415
Met Asn Leu Ala Gly Gly Ala Val Val Leu Ala Leu Glu Gly Gly His		430
420	425	430
Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Ala Ala Leu		445
435	440	445
Leu Gly Asn Arg Val Asp Pro Leu Ser Glu Glu Gly Trp Lys Gln Lys		460
450	455	460
Pro Asn Leu Asn Ala Ile Arg Ser Leu Glu Ala Val Ile Arg Val His		480
465	470	475
Ser Lys Tyr Trp Gly Cys Met Gln Arg Leu Ala Ser Cys Pro Asp Ser		495
485	490	495
Trp Val Pro Arg Val Pro Gly Ala Asp Lys Glu Glu Val Glu Ala Val		510
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Ser Glu Gln Leu Val Glu Glu Glu Pro Met Asn Leu		540
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<210> 5219  
<211> 1212  
<212> DNA  
<213> Homo sapiens

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<211> 179  
<212> PRT  
<213> Homo sapiens



&lt;400&gt; 5220

```

Met Ala Ala Thr Glu Pro Ile Leu Ala Ala Thr Gly Ser Pro Ala Ala
 1           5           10           15
Val Pro Pro Glu Lys Leu Glu Gly Ala Gly Ser Ser Ser Ala Pro Glu
      20           25           30
Arg Asn Cys Val Gly Ser Ser Leu Pro Glu Ala Ser Pro Pro Ala Pro
      35           40           45
Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro
      50           55           60
Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro
65           70           75           80
Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly
      85           90           95
Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg
      100          105          110
Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln
      115          120          125
Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys
      130          135          140
Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu
145          150          155          160
Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg Arg Thr Asp Val Arg
      165          170          175
Ile Thr Gly

```

&lt;210&gt; 5221

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5221

```

ntccggaccc tccaagtgga gaccctggtg gagccccag aaccatgtgc cgagcccgtc
60
gcttttggag acacgttca catacactac acgggaagct tggtagatgg acgtattatt
120
gacacctccc tgaccagaga ccctctggtt atagaacttg gccaaaagca ggtgattcca
180
ggtctggagc agagtcttct cgacatgtgt gtgggagaga agcgaagggc aatcattcct
240
tctcacttgg cctatggaaa acggggattt ccaccatctg tcccagggac taaagacaac
300
ctgatgaggc cacctggcat gacctccagc agccagtaac ttgttaggga agagacctgc
360
ttgggccaca tgggtctgct gcctgtgcca ccacctttcc cagaacactg gacttctttc
420
ctgccctttt ctacaactct acgctgtgtc agctgtacag ccacccccca ccccttcctt
480
tcagccacca tctgtcc
497

```

&lt;210&gt; 5222

&lt;211&gt; 112

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5222

```

Xaa Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu Pro Cys
 1           5           10           15
Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr Thr Gly
 20           25           30
Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg Asp Pro
 35           40           45
Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu Glu Gln
 50           55           60
Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile Ile Pro
 65           70           75           80
Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val Pro Gly
 85           90           95
Thr Lys Asp Asn Leu Met Arg Pro Pro Gly Met Thr Ser Ser Ser Gln
 100           105           110

```

<210> 5223

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5223

```

ngcaccattt tcgacaatga agccaaagac gtggagagag aagtttgctt tattgatatt
 60
gcctgcgatg aaattccaga gcgctactac aaagaatctg aggatcctaa gcacttcaag
 120
tcagagaaga caggacgggg acagttgagg gaaggctgga gagatagtca tcagcctatc
 180
atgtgctcct acaagctggt gactgtgaag tttgaggtct gggggcttca gaccagagtg
 240
gaacaatttg tacacaaggt ggtccgagac attctgctga ttggacatag acaggctttt
 300
gcatggggtg atgagtggta tgatatgaca atggatgatg ttcgggaata cgagaaaaac
 360
atgcatgaac aaaccaacat aaaagtttgc aatcagcatt cctcccctgt ggatgacata
 420
gagagtcatg cccaacaag tacatgacaa tggatgaagt ccgagaattt gaacgagcca
 480
ctcaggaagc caccaacaag aaaatcgga ttttcccacc tgcaatttct atctccagca
 540
tccccctgct gcctttcttc gtccgcagtg cgcttctag tgctccatcc accctctct
 600
ccacagacgc acccgaattt ctgtccgttc ccaaaga
 637

```

<210> 5224

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5224

```

Xaa Thr Ile Phe Asp Asn Glu Ala Lys Asp Val Glu Arg Glu Val Cys

```

```

      1           5           10           15
Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro Glu Arg Tyr Tyr Lys Glu
      20           25           30
Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln
      35           40           45
Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr
      50           55           60
Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val
      65           70           75           80
Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His
      85           90           95
Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp
      100          105          110
Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys
      115          120          125
Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala
      130          135          140
Gln Thr Ser Thr
145

```

&lt;210&gt; 5225

&lt;211&gt; 394

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5225

```

acgcgtgaag gggctgggggt gggcaatcag ggaggacttc ctggaggcgg cagctgaggg
60
tggggcagag aaggaccag ggcactggaa ggggaaggag aaacgtaagc agagtcttgg
120
caggcctggt cagacggaca tgcccaaggg aacagatagt accaggacag gggaccctgg
180
tctgaagggg cgatagcctg gccccagtg gaaacagccc ctcccaaccc tggcggcaga
240
cagggagggt cggcaggtat gtgagatgca aacctggggg actgcccac cccagtgga
300
tgtgaggaca cggtaggttc aggaagtgga gtgacaaatg ggctgtgctg gacttgcttt
360
ccccacatga aggttaggaa ccaagagaac ggcc
394

```

&lt;210&gt; 5226

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5226

```

Met Trp Gly Lys Gln Val Gln His Ser Pro Phe Val Thr Pro Leu Pro
      1           5           10           15
Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg
      20           25           30
Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu
      35           40           45
Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

```

50		55		60											
Gly	Pro	Leu	Ser	Trp	Tyr	Tyr	Leu	Phe	Pro	Trp	Ala	Cys	Pro	Ser	Asp
65					70					75					80
Gln	Ala	Cys	Gln	Asp	Ser	Ala	Tyr	Val	Ser	Pro	Ser	Pro	Ser	Ser	Ala
			85						90					95	
Leu	Gly	Pro	Ser	Leu	Pro	Gln	Pro	Gln	Leu	Pro	Pro	Pro	Gly	Ser	Pro
		100						105					110		
Pro															

&lt;210&gt; 5227

&lt;211&gt; 2366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5227

tcgcgaacag gccacccagg cacacgtgga tgttctttag ctccctggcg ccaccagatg  
 60  
 cagctgccag tgagatgttc tgcagctggt tgatcctctc gctgaagtcg gacacccact  
 120  
 ggatgacggt catgccggca ggcaccgtgt agaaggccag tgtggtaacc ttacctgtct  
 180  
 acctgaactt caccctgtca gacctcatct tcaccgtgga cttcgaaatt gctacaaagg  
 240  
 aggatcctcg cagcttctac gagcgggggtg tcgcagtcct gtgcacagag taaacttttc  
 300  
 tagctgcccc tttctgtaat agtgaaagtt ggtatttaac atttattcat ttttaaaata  
 360  
 tttggaaggt ctgagcttgt gaaaagaaag tgggttggtct gaggttggag gaagctgaat  
 420  
 ggaatctgac ggttgggagt ggtggaaatt ggaaggatac caggaggtat ttgggaaaac  
 480  
 cttacggagc tgccctcgtc tactggagca gaagaaatag acctaatttt cctcaaggga  
 540  
 attatggaga atcctattgt aaaatcactt gctaaggctc gtgagaggct agaagattcc  
 600  
 aaactagaag ctgtcagtga caataacttg gaattagtca atgaaattct tgaagacatc  
 660  
 actcctctaa taaatgtgga tgaaaatgtg gcagaattgg ttggtatact caaagaacct  
 720  
 cacttccagt cactgttgga ggcccatgat attgtggcat caaagtgtta tgattcacct  
 780  
 ccatcaagcc cagaaatgaa taattcttct atcaataatc agttattacc agtagatgcc  
 840  
 attcgtattc ttggtattca caaaagagct ggggaaccac tgggtgtgac atttaggggt  
 900  
 gaaaataatg atctggtaat tgcccgaatc ctccatgggg gaatgataga tcgacaaggt  
 960  
 ctacttcatg tgggagatat aattaaagaa gtcaatggcc atgaggttgg aaataatcca  
 1020  
 aaggaattac aagaattact gaaaaatatt agtggaagtg tcaccctaaa aatcttacca  
 1080  
 agttatagag ataccattac tcctcaacag gtatttgtga agtgtcattt tgattataat  
 1140

ccatacaatg acaacctaata accttgcaaaa gaagcaggat tgaagttttc caaaggagag  
 1200  
 attcttcaga ttgtaaatag agaagatcca aattggtggc aggctagcca tgtaaaagag  
 1260  
 ggaggaagcg ctggtctcat tccaagccag ttcttggaag agaagagaaa ggcatttggt  
 1320  
 agaagagact gggacaattc aggacctttt tgtggaacta taagtagcaa aaaaaagaaa  
 1380  
 aagatgatgt atctcacaac cagaaatgca gaatttgatc gtcatgaaat ccagatatat  
 1440  
 gaggaggtag ccaaaatgcc tcccttcag agaaaaacat tagtattgat aggagctcaa  
 1500  
 ggtgtaggcc gaagaagctt gaaaaacagg ttcatagtat tgaatccac tagatttgga  
 1560  
 actacggtgc catttacttc acggaacca agggaagatg aaaaagatgg ccaggcatat  
 1620  
 aagtttgtgt cacgatctga gatggaagca gatattaaag ctggaaagta tttggaacat  
 1680  
 ggggaatatg aaggaaatct ctatggaacc aaaattgatt ctattcttga ggttgtccaa  
 1740  
 actggacgga cttgcattct ggatgtcaac ccacaagcac tgaaagtatt gaggacatca  
 1800  
 gagtttatgc cctatgtggt atttattgcg gctccggagc tagagacgtt acgtgccatg  
 1860  
 cacaaggctg tgggtgatgc aggaatcact accaagcttc tgaccgactc tgacttgaag  
 1920  
 aaaacagtgg atgaaagtgc acggattcag agagcataca accactatct tgatttgatc  
 1980  
 atcataaatg ataatctaga caaagccttt gaaaaactgc aaactgccat agagaaactg  
 2040  
 agaatggaac cacagtgggt cccaatcagc tgggtttact gatgattcag taaggttaac  
 2100  
 aatgaaaatt aaactcttaa aaagtgactg caacaaataa accttctact gagaaaatac  
 2160  
 atcacagata gaagattatc tgctaagtcc aggcatTTTT atggtgtaga ttgaaataat  
 2220  
 agtacacttc tgaattttta tataaaatgt ggttgaagg tgtactaata tataatttat  
 2280  
 cttaattttt ctaactttgt atggataatc tttctattca tatcacataa agaaatgcgt  
 2340  
 tgaagcaaaa aaaaaaaaaa aaaaaa  
 2366

&lt;210&gt; 5228

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5228

Arg	Leu	Gly	Val	Val	Glu	Ile	Gly	Arg	Ile	Pro	Gly	Gly	Ile	Trp	Glu
1				5				10					15		
Asn	Leu	Thr	Glu	Leu	Pro	Ser	Ser	Thr	Gly	Ala	Glu	Glu	Ile	Asp	Leu
			20					25					30		
Ile	Phe	Leu	Lys	Gly	Ile	Met	Glu	Asn	Pro	Ile	Val	Lys	Ser	Leu	Ala

35	40	45
Lys Ala Arg Glu Arg Leu Glu Asp Ser Lys Leu Glu Ala Val Ser Asp		
50	55	60
Asn Asn Leu Glu Leu Val Asn Glu Ile Leu Glu Asp Ile Thr Pro Leu		
65	70	75
Ile Asn Val Asp Glu Asn Val Ala Glu Leu Val Gly Ile Leu Lys Glu		80
85	90	95
Pro His Phe Gln Ser Leu Leu Glu Ala His Asp Ile Val Ala Ser Lys		
100	105	110
Cys Tyr Asp Ser Pro Pro Ser Ser Pro Glu Met Asn Asn Ser Ser Ile		
115	120	125
Asn Asn Gln Leu Leu Pro Val Asp Ala Ile Arg Ile Leu Gly Ile His		
130	135	140
Lys Arg Ala Gly Glu Pro Leu Gly Val Thr Phe Arg Val Glu Asn Asn		
145	150	155
Asp Leu Val Ile Ala Arg Ile Leu His Gly Gly Met Ile Asp Arg Gln		160
165	170	175
Gly Leu Leu His Val Gly Asp Ile Ile Lys Glu Val Asn Gly His Glu		
180	185	190
Val Gly Asn Asn Pro Lys Glu Leu Gln Glu Leu Leu Lys Asn Ile Ser		
195	200	205
Gly Ser Val Thr Leu Lys Ile Leu Pro Ser Tyr Arg Asp Thr Ile Thr		
210	215	220
Pro Gln Gln Val Phe Val Lys Cys His Phe Asp Tyr Asn Pro Tyr Asn		
225	230	235
Asp Asn Leu Ile Pro Cys Lys Glu Ala Gly Leu Lys Phe Ser Lys Gly		240
245	250	255
Glu Ile Leu Gln Ile Val Asn Arg Glu Asp Pro Asn Trp Trp Gln Ala		
260	265	270
Ser His Val Lys Glu Gly Gly Ser Ala Gly Leu Ile Pro Ser Gln Phe		
275	280	285
Leu Glu Glu Lys Arg Lys Ala Phe Val Arg Arg Asp Trp Asp Asn Ser		
290	295	300
Gly Pro Phe Cys Gly Thr Ile Ser Ser Lys Lys Lys Lys Lys Met Met		
305	310	315
Tyr Leu Thr Thr Arg Asn Ala Glu Phe Asp Arg His Glu Ile Gln Ile		320
325	330	335
Tyr Glu Glu Val Ala Lys Met Pro Pro Phe Gln Arg Lys Thr Leu Val		
340	345	350
Leu Ile Gly Ala Gln Gly Val Gly Arg Arg Ser Leu Lys Asn Arg Phe		
355	360	365
Ile Val Leu Asn Pro Thr Arg Phe Gly Thr Thr Val Pro Phe Thr Ser		
370	375	380
Arg Lys Pro Arg Glu Asp Glu Lys Asp Gly Gln Ala Tyr Lys Phe Val		
385	390	395
Ser Arg Ser Glu Met Glu Ala Asp Ile Lys Ala Gly Lys Tyr Leu Glu		400
405	410	415
His Gly Glu Tyr Glu Gly Asn Leu Tyr Gly Thr Lys Ile Asp Ser Ile		
420	425	430
Leu Glu Val Gln Thr Gly Arg Thr Cys Ile Leu Asp Val Asn Pro		
435	440	445
Gln Ala Leu Lys Val Leu Arg Thr Ser Glu Phe Met Pro Tyr Val Val		
450	455	460
Phe Ile Ala Ala Pro Glu Leu Glu Thr Leu Arg Ala Met His Lys Ala		

465		470		475		480									
Val	Val	Asp	Ala	Gly	Ile	Thr	Thr	Lys	Leu	Leu	Thr	Asp	Ser	Asp	Leu
			485						490					495	
Lys	Lys	Thr	Val	Asp	Glu	Ser	Ala	Arg	Ile	Gln	Arg	Ala	Tyr	Asn	His
			500					505					510		
Tyr	Phe	Asp	Leu	Ile	Ile	Ile	Asn	Asp	Asn	Leu	Asp	Lys	Ala	Phe	Glu
		515					520					525			
Lys	Leu	Gln	Thr	Ala	Ile	Glu	Lys	Leu	Arg	Met	Glu	Pro	Gln	Trp	Val
	530					535					540				
Pro	Ile	Ser	Trp	Val	Tyr										
545					550										

&lt;210&gt; 5229

&lt;211&gt; 1031

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5229

```

acgcgtgtgc tgtggttaca tccgtggaac agacagacag cagctgcccc tgcaaagtgc
60
agcgccagcc cagtcaaaag agcttgaaac ctaccaagcc ggaggactgt gctgtgcctc
120
tctcgcccac attttcccca agcactctca ggaacctggc aacagtgtcc ccttgtggcc
180
aagcctggaa catcacatct gtacgttgca atctgtggat cagctacgag actgagagaa
240
aggaatgaaa ggatggaaga attacaagat caggcactgc tgtctgtctg ttccacggat
300
gtaaccacag cacacgcgtg gctcacggta ctagtgtgat aaatgcttgt tacatgaagg
360
cgtgaacagg gatgagaaga gacttcctgg agaaacaaaa ggactaacia tcaggaaggg
420
gaggtgatcg gggcaggagt aaagtggaca cctcagcaaa gccattcgct gtgatctctg
480
attgtgcagt gtcattgtct gtcaccagag cccctcgtg tttgatgttg gccaatgccg
540
ccagcatgat ctagcaggcc aaatcctaatt ctaccattct ctgacaccag ctgggtccct
600
ggggtcgtcc acccgatgtc cccattctc cccacttggc ctccccaca ggctctcggc
660
aaaggaccgt gggaggcacc tgtgacactg cccttttctt gtgcagctgt tttcttctt
720
cattcttttc actcctcgtt actctttttt ttttactct cagccacac aaaactagga
780
actttgttat tctacttatt tttctgtact ctgtctgttt gcacacagat ggatatctga
840
gagccagcga actttcttta cctcctagta tcatttcatg aaaattagta gcacctgcac
900
aatggggcct tggagacagg aataaaagga aaaatctgga atggaatcac atgacgcaac
960
aggctatgaa gactccctgc ccggctgcta tatgtctggt aaacagaata aatagtactt
1020
gagcatccct g
1031

```

&lt;210&gt; 5230

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5230

```

Met Ile Leu Gly Gly Lys Glu Ser Ser Leu Ala Leu Arg Tyr Pro Ser
 1           5           10           15
Val Cys Lys Gln Thr Glu Tyr Arg Lys Ile Ser Arg Ile Thr Lys Phe
           20           25           30
Leu Val Leu Cys Gly Leu Arg Val Lys Lys Lys Arg Val Thr Arg Ser
           35           40           45
Glu Lys Asn Glu Glu Glu Lys Gln Leu His Arg Lys Arg Ala Val Ser
           50           55           60
Gln Val Pro Pro Thr Val Leu Cys Arg Glu Pro Val Gly Glu Ala Lys
65           70           75           80
Trp Gly Glu Trp Gly Thr Ser Gly Gly Arg Pro Gln Gly Thr Ser Trp
           85           90           95
Cys Gln Arg Met Val Asp
           100

```

&lt;210&gt; 5231

&lt;211&gt; 845

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5231

```

tccggatctt ggagggtaca gagggcgccc ctgggctcc tccctttcgg aggtggggac
60
aaggtggagg aagggctgca ggaggaggag ctctagcatc gcgacccgcc ccgtcccgtc
120
cagtctggcc tgggcgcgcg gggaaacgctg tcttggtgctc cgccaccga acagcctgtc
180
ctggtgcccc ggctccctgc cccgcgcccc gtcattgaccc tgcgccccctc actcctcccc
240
ctccatctgc tgctgctgct gctgctcagt gcggcggtgt gccgggctga ggctgggctc
300
gaaaccgaaa gtcccgctccg gacctccaa gtggagaccc tgggtggagcc cccagaacca
360
tgtgccgagc ccgctgcttt tggagacacg cttcacatac actacacggg aagcttggtg
420
gatggacgta ttattgacac ctccctgacc agagaccctc tggttataga acttggccaa
480
aagcaggtga ttccaggtct ggagcagagt cttctcgaca tgtgtgtggg agagaagcga
540
agggcaatca ttccttctca cttggcctat ggaaaacggg gatttccacc atctgtccca
600
gcggatgcag tgggtgcagta tgacgtggag ctgattgcac taatccgagc caactactgg
660
ctaaagctgg tgaagggcat tttgcctctg gtagggatgg ccattggtgcc agccctcctg
720
ggcctcattg ggtatcacct atacagaaaag gccaatagac ccaaagtctc caaaaagaag
780

```



ctcaaggaag agaaacgaaa caagagcaaa aagaaataat aaataataaa ttttaaaaaa  
 840  
 cttaa  
 845

<210> 5232  
 <211> 201  
 <212> PRT  
 <213> Homo sapiens

<400> 5232  
 Met Thr Leu Arg Pro Ser Leu Leu Pro Leu His Leu Leu Leu Leu Leu  
 1 5 10 15  
 Leu Leu Ser Ala Ala Val Cys Arg Ala Glu Ala Gly Leu Glu Thr Glu  
 20 25 30  
 Ser Pro Val Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu  
 35 40 45  
 Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr  
 50 55 60  
 Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg  
 65 70 75 80  
 Asp Pro Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu  
 85 90 95  
 Glu Gln Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile  
 100 105 110  
 Ile Pro Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val  
 115 120 125  
 Pro Ala Asp Ala Val Val Gln Tyr Asp Val Glu Leu Ile Ala Leu Ile  
 130 135 140  
 Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys Gly Ile Leu Pro Leu Val  
 145 150 155 160  
 Gly Met Ala Met Val Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu  
 165 170 175  
 Tyr Arg Lys Ala Asn Arg Pro Lys Val Ser Lys Lys Lys Leu Lys Glu  
 180 185 190  
 Glu Lys Arg Asn Lys Ser Lys Lys Lys  
 195 200

<210> 5233  
 <211> 2801  
 <212> DNA  
 <213> Homo sapiens

<400> 5233  
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 ccccaagaag tgctccagat ttgcaaggaa tagccccaag agaataccaa gacaagcagg  
 120  
 ctgttccctg gaaaaaatct aatgcaagga gggctagttc acagcaaatt cactgcctcc  
 180  
 tcccatgcac gtggtagaga gtaccagtat caacatggcc ctgttttctg ctaaaaccag  
 240  
 attttgagga atcagagacc cccaacacta ctcaactcagt agctagcagc cccttccttt  
 300

caactgggag tgttattaga atgaaaagta attagttaga agggcataca tctcagtggc  
360  
atgagcattg tggaatatcc tttcctaggc acatttgtcc actaagggaa cagcctcaga  
420  
aactgggtaca gcaatgggtg agatgagatc ctggagagag aacacagcca tcccctatag  
480  
aaaggcacag cttttgggct tctctggcct gaatgccttc tgggggtattt ccatatgcaa  
540  
cagcccagag tcatagcctt gggcaaccac acatagaggt ttccttctca cttcagacac  
600  
atacatcact ttcacaccac ttgggggatgg aaatacctac aagagtgaag gtcaagggcc  
660  
ctccccaggc atctcattca ttactcagct tccttcctga ccaagtctgc caaccaatgg  
720  
ccagctatgc gcctcctcct cattgcttct gcctccacgt aaatgaaacc aaaggcctca  
780  
gcatatcctg ggaggactgg gggctgttac ctaatgggcc tctctgtccc attataggtg  
840  
caaggcacc caccacaca tttgcaccac tactccaaga tagtattttt cttttcacac  
900  
aatctcttta cagcagaatc cagagttggg ttgtagttta ccttcctgga aagctcatta  
960  
tctttgtttg aattaacatt tcagcatgga actaactggg cggaggaagg atcgttatac  
1020  
gtcttcagaa agttctcatt gccccagctg cctagtacta tacaagaagc tctactttga  
1080  
tggcagatct aagaaggcta taggcctttg tttgtaggaa gcagtgtcat tacattcaag  
1140  
cttcacttct ctgattggct tccaaccact gggattcaaa gagaatccaa gggtctgcct  
1200  
atgtctgatg acataaggaa aacttggctt cctctgtctca aggttccccct ctgctcatcc  
1260  
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1320  
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&lt;210&gt; 5234

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5234

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			20				25					30			
Ile	Ile	Ser	Lys	Glu	Thr	Pro	Pro	Pro	Pro	Arg	Leu	Ile	Phe	Lys	Lys
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&lt;210&gt; 5235

&lt;211&gt; 3017

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5235

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3017

&lt;210&gt; 5236

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5236

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Pro Pro Thr Trp Glu Ser Pro Gly Asp Asp Ala Ser Leu Glu His Glu			
35	40	45	
Ala Glu Met Asp Leu Gly Thr Pro Thr Tyr Asp Glu Asn Pro Met Lys			
50	55	60	
Ala Ser Lys Lys Pro Lys Thr Ala Glu Ala Asp Thr Ser Ser Glu Leu			
65	70	75	80
Ala Lys Lys Ser Lys Glu Val Phe Arg Lys Glu Met Ser Gln Phe Ile			
85	90	95	
Val Gln Cys Leu Asn Pro Tyr Arg Lys Pro Asp Cys Lys Val Gly Arg			
100	105	110	
Ile Thr Thr Thr Glu Asp Phe Lys His Leu Ala Arg Lys Leu Thr His			
115	120	125	
Gly Val Met Asn Lys Glu Leu Lys Tyr Cys Lys Asn Pro Glu Asp Leu			
130	135	140	
Glu Cys Asn Glu Asn Val Lys His Lys Thr Lys Glu Tyr Ile Lys Lys			
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Leu Glu			

<210> 5237  
 <211> 1238  
 <212> DNA  
 <213> Homo sapiens

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 1238

&lt;210&gt; 5238

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5238

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Pro	Lys	Ala	Ala	Pro	Tyr	Ser	Val	Gly	Ile	Ala	Asn	Val	Asp	Val	Leu
			20					25					30		
Leu	Leu	Gly	Ile	Tyr	Ile	Ile	His	Arg	Ala	Val	Arg	Asn	Pro	Asp	Asp
		35					40					45			
Leu	Glu	Ala	Arg	Ser	His	Met	His	Leu	Ala	Ser	Ala	Phe	Ala	Gly	Ile
	50					55					60				
Gly	Phe	Gly	Asn	Ala	Gly	Val	His	Leu	Cys	His	Gly	Met	Ser	Tyr	Pro
65					70					75				80	
Ile	Ser	Gly	Leu	Val	Lys	Met	Tyr	Lys	Ala	Lys	Asp	Tyr	Asn	Val	Asp
			85					90						95	
His	Pro	Leu	Val	Pro	His	Gly	Leu	Ser	Val	Val	Leu	Thr	Ser	Pro	Ala
			100					105					110		
Val	Phe	Thr	Phe	Thr	Ala	Gln	Met	Phe	Pro	Glu	Arg	His	Leu	Glu	Met
		115					120					125			
Ala	Glu	Ile	Leu	Gly	Ala	Asp	Thr	Arg	Thr	Ala	Arg	Ile	Gln	Asp	Ala
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Gly	Leu	Val	Leu	Ala	Asp	Thr	Leu	Arg	Lys	Phe	Leu	Phe	Asp	Leu	Asp
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Val	Asp	Asp	Gly	Leu	Ala	Ala	Val	Gly	Tyr	Ser	Lys	Ala	Asp	Ile	Pro
			165					170					175		
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		180					185						190		
Pro	Arg	Pro	Gln	Ser	Glu	Glu	Asp	Leu	Ala	Ala	Leu	Phe	Glu	Ala	Ser
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<211> 2061  
<212> DNA  
<213> Homo sapiens

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1440



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<210> 5240

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5240

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Ser	Pro	Ser	Trp	Leu	Val	Ser	Val	Leu	Pro	Thr	Ser	Leu	Leu	Ser	Leu
		20						25					30		
Ser	Ala	Gly	Gly	Thr	Pro	Ser	Gly	Cys	Thr	Val	Ala	Gly	Gly	Leu	Gly
	35						40					45			
Ala	Ser	Gly	Gly	Val	Gly	Ser	Thr	Gly	Thr	Gly	Ala	Ser	Pro	Pro	Thr
	50					55					60				
Thr	Val	Ala	Ile	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
65				70					75					80	
Ser	Ser	Glu	Ser	Val	Ser	Leu	Gly	Gly	Ala	Trp	Gly	Gly	Pro	Gly	Gly
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Gly	Ser	Leu	Ser	Pro	Arg	Ser	Ala	Phe	Phe	Asn	Phe	Arg	Phe	Leu	Leu
		100						105					110		
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	115						120					125			
Leu	Arg	Ser	Thr	Pro	Lys	Pro	Ala	Pro	Ala	Pro	Gly	Pro	Asn	Phe	Arg
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Phe	Phe	Arg	Ser	Phe	Phe	Arg	Gly	Gly	Trp	Glu	Arg	Ser	Pro	Trp	Glu
145					150				155					160	
Arg	Gly	Thr	Gly	Val	Arg	Ala	Ala	Gly	Gly	Arg	Glu	Val	Cys	Val	Arg
			165					170						175	
Asp	Val	Gly	Asp	Lys	Gly	Asp	Ala	Thr	Leu	Gly	Pro	Ser	Arg	Ser	Lys
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[illegible]

145

<210> 5243  
 <211> 344  
 <212> DNA  
 <213> Homo sapiens

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 240  
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<210> 5244  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 5244  
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 20 25 30  
 Val Thr Val Asp Pro Asp Asn Ser Asn Cys Ser Glu Glu Ser Ala Arg  
 35 40 45  
 Leu Ser Leu Lys Leu Gly Asp Ala Gly Asn Pro Arg Ser Leu Ala Ile  
 50 55 60  
 Arg Phe Ile Leu Thr Asn Tyr Asn Lys Leu Ser Ile Gln Ser Trp Phe  
 65 70 75 80  
 Ser Leu Arg Arg Val Glu Ile Ile Ser Asn Asn Ser Ile Gln Ala Val  
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 Phe Asn Pro Thr Gly Val Tyr Ala Pro Ser Gly Tyr Ser Tyr Arg Cys  
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 Gln Arg

<210> 5245  
 <211> 483  
 <212> DNA  
 <213> Homo sapiens

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<210> 5246  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

<400> 5246  
 Met Leu Lys Ala Lys Ile Leu Phe Val Gly Pro Cys Glu Ser Gly Lys  
 1 5 10 15  
 Thr Val Leu Ala Asn Phe Leu Thr Glu Ser Ser Asp Ile Thr Glu Tyr  
 20 25 30  
 Ser Pro Thr Gln Gly Val Arg Phe Glu Ser Cys Trp Pro Ala Leu Met  
 35 40 45  
 Lys Asp Ala His Gly Val Val Ile Val Phe Asn Ala Asp Ile Pro Ser  
 50 55 60  
 His Arg Lys Glu Met Glu Met Trp Tyr Ser Cys Phe Val Gln Gln Pro  
 65 70 75 80  
 Ser Leu Gln Asp Thr Gln Cys Met Leu Ile Ala His His Lys Pro Gly  
 85 90 95  
 Ser Gly Asp Asp Lys Gly Ser Leu Ser Leu Ser Pro Pro Leu Asn Lys  
 100 105 110  
 Leu Lys Leu Val His Ser Asn Leu Glu Asp Asp Pro Glu Glu Ile Arg  
 115 120 125  
 Met Glu Phe  
 130

<210> 5247  
 <211> 1004  
 <212> DNA  
 <213> Homo sapiens

<400> 5247  
 nngccatgga aacgaaagcg gccaaagtaga gctccgtcct gacgcgccgc ctcccgtagg  
 60  
 ctccggcccg ctaagccgcg gcggacaact atgctgaaag ccaagatcct ctccgtaggg  
 120  
 ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacagcc caaccaaggg agtgaggatc ctagaatttg agaaccgcga tgttaccagc  
 240

aacaacaaag gcacgggctg tgaattcgag ctatgggact gtgggtggcga tgctaagttt  
300  
gagtcctgct ggccggccct gatgaaggat gctcatggag tggatgatcgt cttcaatgct  
360  
gacatcccaa gccaccggaa ggaaatggag atgtggtatt cctgctttgt ccaacagccg  
420  
tccttacagg acacacagtg tatgctaatt gcacaccaca aaccaggctc tggagatgat  
480  
aaaggaagcc tgtctttgtc gccacccttg aacaagctga agctggtgca ctcaaacctg  
540  
gaagatgacc ctgaggagat ccggatggaa ttcataaagt atttaaaaag cataatcaac  
600  
tccatgtctg agagcagaga cagggaggag atgtcaatta tgacctagcc agccttcacc  
660  
tgggactgcc acatccccag tgaaatcagc atgtttctcg gtgcagatct gaaatcacat  
720  
ccagctcctg atgttttctt ctccctctga ctgcagagga agtggttcta cctgcaggaa  
780  
ggcacctgtc acacagggcg ttcactcaga ccactctgtc tctgccctga gttcagttga  
840  
gaaaatccta ttatcaaatt tggatttctt ggccccagaa cttcccaaag acctgtaaaa  
900  
tggagggatt taccacctca catatgtcca gttaaacagt ttgtggactt gtaaccgtcg  
960  
cagcccaatg atacaacagt agtttaatca cgtgaaaaaa aaaa  
1004

&lt;210&gt; 5248

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5248

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
		20						25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Ile	Leu	Glu	Phe	Glu	Asn	Pro	His	Val
		35					40					45			
Thr	Ser	Asn	Asn	Lys	Gly	Thr	Gly	Cys	Glu	Phe	Glu	Leu	Trp	Asp	Cys
		50				55					60				
Gly	Gly	Asp	Ala	Lys	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met	Lys	Asp
65					70					75				80	
Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser	His	Arg
				85				90						95	
Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro	Ser	Leu
		100						105					110		
Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly	Ser	Gly
		115					120						125		
Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys	Leu	Lys
		130				135					140				
Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg	Met	Glu
145					150					155					160
Phe	Ile	Lys	Tyr	Leu	Lys	Ser	Ile	Ile	Asn	Ser	Met	Ser	Glu	Ser	Arg

<400> 5250																
Xaa	Arg	Val	Arg	Ala	Thr	Gly	Pro	Ala	Gly	Ala	Val	Leu	Ile	Pro	Ser	
1				5					10					15		
Pro	Val	Lys	Ser	Tyr	Arg	Gly	Trp	Leu	Val	Met	Gly	Glu	Pro	Ser	Arg	
			20					25					30			
Glu	Glu	Tyr	Lys	Ile	Gln	Ser	Phe	Asp	Ala	Glu	Thr	Gln	Gln	Leu	Leu	
		35					40					45				
Lys	Thr	Ala	Leu	Lys	Asp	Pro	Gly	Ala	Val	Asp	Leu	Glu	Lys	Val	Ala	
		50				55					60					
Asn	Val	Ile	Val	Asp	His	Ser	Leu	Gln	Asp	Cys	Val	Phe	Ser	Lys	Glu	
65					70					75					80	
Ala	Gly	Arg	Met	Cys	Tyr	Ala	Ile	Ile	Gln	Ala	Glu	Ser	Lys	Gln	Ala	
				85					90					95		
Gly	Gln	Ser	Val	Phe	Arg	Arg	Gly	Leu	Leu	Asn	Arg	Leu	Gln	Gln	Glu	
			100					105					110			
Tyr	Gln	Ala	Arg	Glu	Gln	Leu	Arg	Ala	Arg	Ser	Leu	Gln	Gly	Trp	Val	

```

      115              120              125
Cys Tyr Val Thr Phe Ile Cys Asn Ile Phe Asp Tyr Leu Arg Val Asn
      130              135              140
Asn Met Pro Met Met Ala Leu Val Asn Pro Val Tyr Asp Cys Leu Phe
145              150              155              160
Arg Leu Ala Gln Pro Asp Ser Leu Ser Lys Glu Glu Glu Val Asp Cys
      165              170              175
Leu Val Leu Gln Leu His Arg Val Gly Glu Gln Leu Glu Lys Met Asn
      180              185              190
Gly Gln Arg Met Asp Glu Leu Phe Val Leu Ile Arg Asp Gly Phe Leu
      195              200              205
Leu Pro Thr Gly Leu Ser Ser Leu Ala
      210              215

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<210> 5251  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

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<400> 5251
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60
caccacagcg ggacggcact tcattatgac gatgtcccgt gcatcaacgg ctcgggggaa
120
ccggaagacg gctttcctgc tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccacggcc tgtacgataa ctggccgcct ccgcacatct ttgcccgcta ctctcctgct
240
gacagaaagg cctctaggct gtctgctgac aagctgtcct ctaaccatta caaataccct
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360
tcgcagcctc ag
372

```

<210> 5252  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

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<400> 5252
Met Asn Arg Arg Val Ile Ser Ala Asn Pro Tyr Leu Gly Gly Thr Ser
  1              5              10              15
Asn Gly Tyr Ala His Pro Ser Gly Thr Ala Leu His Tyr Asp Asp Val
      20              25              30
Pro Cys Ile Asn Gly Ser Gly Glu Pro Glu Asp Gly Phe Pro Ala Phe
      35              40              45
Cys Ser Arg Ser Leu Gly Glu Glu Gly Ala Phe Glu Asn Pro Gly Leu
      50              55              60
Tyr Asp Asn Trp Pro Pro His Ile Phe Ala Arg Tyr Ser Pro Ala
      65              70              75              80
Asp Arg Lys Ala Ser Arg Leu Ser Ala Asp Lys Leu Ser Ser Asn His
      85              90              95
Tyr Lys Tyr Pro Ala Ser Ala Gln Ser Val Thr Asn Thr Ser Ser Val

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100                      105                      110  
 Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln  
          115                      120

<210> 5253  
 <211> 898  
 <212> DNA  
 <213> Homo sapiens

<400> 5253  
 ngaatatcca tgcagcgatc ctcaaggaca aactctgctg ctttttctct ttgtggattt  
 60  
 ccacagtgc tttccagtcc agcaaattgga aatctgggga gtctatactt tgctcacaac  
 120  
 tcattctcaat gccatccttg tggagagcca cagtgtagtg caagggtcca tccaattcac  
 180  
 tgtggacaag gtcttggagc aacatcacca ggctgccaag gctcagcaga aactacaggc  
 240  
 ctactctca gtggtgtga actccatcat gagtattctg actggaagca ctaggagcag  
 300  
 cttccgaaag atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa  
 360  
 actgcacaaa gtatttcgtg agatcaccca acaccaattt cttcaccact gctcatgtga  
 420  
 ggtgaagcag cagctaacct tagaaaaaaa ggactcagcc cagggcactg aggacgcacc  
 480  
 tgataacagc agcctggagc tcctagcaga taccagcggg caagcagaaa acaagaggct  
 540  
 caagagggggc agcccccgca tagaggagat gcgagctctg cgctctgcca gggccccgag  
 600  
 cccgtcagag gccgccccgc gccgccccga agccaccgcg gccccctca ctctagagg  
 660  
 aagggagcac cgcgaggctc acggcagggc cctggcgccg ggcagggcga gcctcggaag  
 720  
 ccgcctggag gacgtgctgt ggctgcagga ggtctccaac ctgtcagagt ggctgagtcc  
 780  
 cagccctggg ccctgagccg ggtccccttc cgcaagcgcc caccgatccg gaggtgcgg  
 840  
 gcagccgtta tcccgtggtt taataaagct gccgcgcgct caaaaaaaaa aaaaaaaaa  
 898

<210> 5254  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 5254  
 Gln Gln Pro Gly Ala Pro Ser Arg Tyr Gln Arg Ala Ser Arg Lys Gln  
   1                  5                  10                  15  
 Glu Ala Gln Glu Gly Gln Pro Pro His Arg Gly Asp Ala Ser Ser Ala  
           20                  25                  30  
 Leu Cys Gln Gly Pro Glu Pro Val Arg Gly Arg Pro Ala Pro Pro Gly  
           35                  40                  45  
 Ser His Arg Gly Pro Pro His Ser



50

55

<210> 5255  
<211> 1410  
<212> DNA  
<213> Homo sapiens

<400> 5255  
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caaccccaaga tccccatgcc tegagccctg gatctccaag ctcagctgct ggattctgga  
120  
tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca  
180  
tactggatc ccagatcccc tactccacc cactggattc ctgcattggg ttttggtttt  
240  
ttgttttttt ttaacctoga cactgggtct cagatccttc tgetgactgc cagatccctg  
300  
catttcaagc actacgcctt ccacccccag gcactggatc ccagattccc aagccttcac  
360  
ccaccagatt ctggctccta aaacaagtgc gggggcccca gtggcacagc aagtggatcc  
420  
tggcaactgc agctgctgga ttccagattc tgggtcccca atccctctgc ccagtccttc  
480  
aatgttgaaa cctcatctct tgaaggcaga tcctgatatt ccaaggcact gaatcccaag  
540  
ccctgaatcc ccggtttctg atctgaatct tccaggcgcc ggggtcccaa tgttcaggcc  
600  
ccaagtctag atcctggcag ccagtcaca gagtatccca cacacactgg tgcccagagc  
660  
cggcttctca tgacatgaaa ttgcatggtc gagggagtct gtggggaagg aagcccaggt  
720  
cctggctgca acctgcacgg atgctggatt cccctcacc ccacctctgc atggccaccc  
780  
cctcccagcc ctgtggggaa actgttcctt ggaaccactc cactccctgc atccccacac  
840  
ttcacagcat cttccatccc cctcccactt tctaggcgaa tagtccccag agctgtgttc  
900  
ctccaagggg tccgaggaat cactcactcc tggaggctgg caaggagaca gtctgaggcc  
960  
agggacacat gaagggatgt cccacccca gcactatcag ggcctcccca ggcttcaga  
1020  
gttgaaagcc aggagaaaat cggcaaagac cacccttccc taaaccaag cacccaatga  
1080  
tgcaaaaaac aaaaacaaaa aaaaccacca aatccccaaa ttcattccag atctattttt  
1140  
ctaccagaga gaggagcaaa gtctctctcc cctgcgccct tacattctgc acttcatagt  
1200  
tggattctga gcttaggatc atctggagac cccatggagg gacttggaaa ggggaactgg  
1260  
gatttgggga ggggctggag gacttccgca cgcttccacc tccttcgacc tccactgcgc  
1320  
cccacctccc tgcctgtgtg tgttatttca aaggaaaaga acaaaaggaa taaattttct  
1380

aagctcttta aaaaaaaaaa aaaaaaaaaa  
1410

<210> 5256  
<211> 95  
<212> PRT  
<213> Homo sapiens

<400> 5256  
Met Val Glu Gly Val Cys Gly Glu Gly Ser Pro Gly Pro Gly Cys Asn  
1 5 10 15  
Leu His Gly Cys Trp Ile Pro Pro His Pro Thr Ser Ala Trp Pro Pro  
20 25 30  
Pro Pro Ser Pro Val Gly Lys Leu Phe Pro Gly Thr Thr Pro Leu Pro  
35 40 45  
Ala Ser Pro His Phe Thr Ala Ser Ser Ile Pro Leu Pro Pro Ser Arg  
50 55 60  
Arg Ile Val Pro Arg Ala Val Phe Leu Gln Gly Val Arg Gly Ile Thr  
65 70 75 80  
His Ser Trp Arg Leu Ala Arg Arg Gln Ser Glu Ala Arg Asp Thr  
85 90 95

<210> 5257  
<211> 1366  
<212> DNA  
<213> Homo sapiens

<400> 5257  
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accccgcccg gcagtggcgg gggcctgctc ccagcttctg gctgtcacgg acctgccgccc  
120  
tcctcctact ccgcatccgc cgagcctgcc cgggtccgcg gccttgtcta tgggcaccac  
180  
ggggatccag ccaaggctgt cgaactcaag aacctggagc tagctgctgt gagaggatca  
240  
gatgtccgtg tgaagatgct ggcggcccct atcaatccat ctgacataaa tatgatccaa  
300  
ggaaactacg gactccttcc tgaactgcct gctgttggag ggaacgaagg tgttgcacag  
360  
gtggtagcgg tgggcagcaa tgtgaccggg ctgaagccag gagactgggt gattccagca  
420  
aatgctgggt tagactcagg aacctggcgg accgaggctg tgttcagcga ggaagcactg  
480  
atccaagttc cgagtgcacat ccctcttcag agcgctgccca ccctgggtgt caatccctgc  
540  
acagcctaca ggatgttgat ggacttcgag caactgcagc caggggattc tgtcatccag  
600  
aatgcatcca acagcggagt ggggcaagca gtcattccaga tcgccgcagc cctgggccta  
660  
agaaccatca atgtgggtccg agacagacct gatattccaga agctgagtga cagactgaag  
720  
agtctggggg ctgagcatgt catcacagaa gaggagctaa gaaggcccga aatgaaaaac  
780

ttctttaagg acatgccccca gccacggctt gctctcaact gtgttggtgg gaaaagctcc  
 840  
 acagagctgc tgcggcagtt agcgcgtgga ggaaccatgg taacctatgg ggggatggcc  
 900  
 aagcagcccg tcgtagcctc tgtgagcctg ctcatTTTTta aggatctcaa acttcgaggc  
 960  
 ttttggttgt cccagtggaa gaaggatcac agtccagacc agttcaagga gctgatcctc  
 1020  
 aactgtgcg atctcatccg ccgaggccag ctcacagccc ctgcctgctc ccaggtcccg  
 1080  
 ctgcaggact accagtctgc cttggaagcc tccatgaagc cttcatatc ttcaaagcag  
 1140  
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 1200  
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 cactgcctct tcctattagg aggatggtga agccagccac ggTTTTcccc agggccagcc  
 1320  
 ttaaggtatc taataaagtc tgaactctcc cttccaaaaa aaaaaa  
 1366

&lt;210&gt; 5258

&lt;211&gt; 375

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5258

Met	Trp	Val	Cys	Ser	Thr	Leu	Trp	Arg	Val	Arg	Thr	Pro	Pro	Gly	Ser
1				5					10					15	
Gly	Gly	Gly	Leu	Leu	Pro	Ala	Ser	Gly	Cys	His	Gly	Pro	Ala	Ala	Ser
			20					25					30		
Ser	Tyr	Ser	Ala	Ser	Ala	Glu	Pro	Ala	Arg	Val	Arg	Gly	Leu	Val	Tyr
		35					40					45			
Gly	His	His	Gly	Asp	Pro	Ala	Lys	Val	Val	Glu	Leu	Lys	Asn	Leu	Glu
	50					55					60				
Leu	Ala	Ala	Val	Arg	Gly	Ser	Asp	Val	Arg	Val	Lys	Met	Leu	Ala	Ala
65				70					75					80	
Pro	Ile	Asn	Pro	Ser	Asp	Ile	Asn	Met	Ile	Gln	Gly	Asn	Tyr	Gly	Leu
				85					90					95	
Leu	Pro	Glu	Leu	Pro	Ala	Val	Gly	Gly	Asn	Glu	Gly	Val	Ala	Gln	Val
			100					105					110		
Val	Ala	Val	Gly	Ser	Asn	Val	Thr	Gly	Leu	Lys	Pro	Gly	Asp	Trp	Val
		115				120						125			
Ile	Pro	Ala	Asn	Ala	Gly	Leu	Asp	Ser	Gly	Thr	Trp	Arg	Thr	Glu	Ala
	130				135						140				
Val	Phe	Ser	Glu	Glu	Ala	Leu	Ile	Gln	Val	Pro	Ser	Asp	Ile	Pro	Leu
145					150				155					160	
Gln	Ser	Ala	Ala	Thr	Leu	Gly	Val	Asn	Pro	Cys	Thr	Ala	Tyr	Arg	Met
			165					170						175	
Leu	Met	Asp	Phe	Glu	Gln	Leu	Gln	Pro	Gly	Asp	Ser	Val	Ile	Gln	Asn
		180					185						190		
Ala	Ser	Asn	Ser	Gly	Val	Gly	Gln	Ala	Val	Ile	Gln	Ile	Ala	Ala	Ala
	195					200					205				
Leu	Gly	Leu	Arg	Thr	Ile	Asn	Val	Val	Arg	Asp	Arg	Pro	Asp	Ile	Gln

```

      210              215              220
Lys Leu Ser Asp Arg Leu Lys Ser Leu Gly Ala Glu His Val Ile Thr
225              230              235              240
Glu Glu Glu Leu Arg Arg Pro Glu Met Lys Asn Phe Phe Lys Asp Met
      245              250              255
Pro Gln Pro Arg Leu Ala Leu Asn Cys Val Gly Gly Lys Ser Ser Thr
      260              265              270
Glu Leu Leu Arg Gln Leu Ala Arg Gly Gly Thr Met Val Thr Tyr Gly
      275              280              285
Gly Met Ala Lys Gln Pro Val Val Ala Ser Val Ser Leu Leu Ile Phe
      290              295              300
Lys Asp Leu Lys Leu Arg Gly Phe Trp Leu Ser Gln Trp Lys Lys Asp
305              310              315              320
His Ser Pro Asp Gln Phe Lys Glu Leu Ile Leu Thr Leu Cys Asp Leu
      325              330              335
Ile Arg Arg Gly Gln Leu Thr Ala Pro Ala Cys Ser Gln Val Pro Leu
      340              345              350
Gln Asp Tyr Gln Ser Ala Leu Glu Ala Ser Met Lys Pro Phe Ile Ser
      355              360              365
Ser Lys Gln Ile Leu Thr Met
      370              375

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&lt;210&gt; 5259

&lt;211&gt; 306

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5259

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ctgaattgct gtgagggcag aacacccaag gagacaatag aaaatttggt gcacagaatg
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actgaagaga agacgctgac tgctgagggt ttggtaaaac tcctccaggc tgtgaagacg
120
actttcccaa acctgggcct tctgctagag aagttgcaga aatcagccac tttgccaagc
180
accacagtcc aaccaagccc tgatgattat gggactgagc tattgagacg ctatcatgaa
240
aacctctctg agattttcac agacaaccag attttattaa agatgatctc acacatgaca
300
agttta
306

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&lt;210&gt; 5260

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5260

```

Met Thr Glu Glu Lys Thr Leu Thr Ala Glu Gly Leu Val Lys Leu Leu
1              5              10              15
Gln Ala Val Lys Thr Thr Phe Pro Asn Leu Gly Leu Leu Leu Glu Lys
      20              25              30
Leu Gln Lys Ser Ala Thr Leu Pro Ser Thr Thr Val Gln Pro Ser Pro
      35              40              45
Asp Asp Tyr Gly Thr Glu Leu Leu Arg Arg Tyr His Glu Asn Leu Ser

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50                                      55                                      60  
 Glu Ile Phe Thr Asp Asn Gln Ile Leu Leu Lys Met Ile Ser His Met  
 65                                      70                                      75                                      80  
 Thr Ser Leu

<210> 5261  
 <211> 2394  
 <212> DNA  
 <213> Homo sapiens

<400> 5261  
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 120  
 atctgtttcc agggagacga gggcgctgc cgcacccggg acttcgtggt aggagcgctt  
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 300  
 tacgaggaga agcgggagca ggaggactgc tgggagaact ttgtggtgct ggggcggagc  
 360  
 aagtccagct tgaagacgct cttcatctc ttccggaacg agacgggtgga cgtggaggac  
 420  
 attgtgactt ggctcaagcg ccactgcgac gtgctggccg tgccggtgaa agtgaccgac  
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 660  
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 720  
 ggcacgtgt gcaacctctg tggcaagcga ggacacgcct ttgcccagtg tcccaaagca  
 780  
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 900  
 cattttttat cgtttttgaa ggagatcttt ttaaaacctt caagagacat ctctctatgc  
 960  
 cttcttaaac cgagtttact ccatttcagc ctgttctgaa ttggtgactc tgtcaccaat  
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 1140  
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 1200  
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&lt;210&gt; 5262

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5262

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Asn Phe Val Val Leu Gly Arg Ser Lys Ser Ser Leu Lys Thr Leu Phe
115        120        125
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130        135        140
Leu Lys Arg His Cys Asp Val Leu Ala Val Pro Val Lys Val Thr Asp
145        150        155        160
Arg Phe Gly Ile Trp Thr Gly Glu Tyr Lys Cys Glu Ile Glu Leu Arg
165        170        175
Gln Gly Glu Gly Gly Val Arg His Leu Pro Gly Ala Phe Phe Leu Gly
180        185        190
Ala Glu Arg Gly Tyr Ser Trp Tyr Lys Gly Gln Pro Lys Thr Cys Phe
195        200        205
Lys Cys Gly Ser Arg Thr His Met Ser Gly Ser Cys Thr Gln Asp Arg
210        215        220
Cys Phe Arg Cys Gly Glu Gly His Leu Ser Pro Tyr Cys Arg Lys
225        230        235        240
Gly Ile Val Cys Asn Leu Cys Gly Lys Arg Gly His Ala Phe Ala Gln
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&lt;210&gt; 5263

&lt;211&gt; 319

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5263

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&lt;210&gt; 5264

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5264

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 Trp His Phe Asn Ile Asn Gln Lys Arg Phe Ser Lys Ala Gln Pro Thr  
 35 40 45  
 Cys Phe Leu Leu Ile Leu Pro Cys Gln Lys Ile Met Cys Ile Tyr  
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 Phe Gln Leu Leu Leu Met Glu Thr Thr Ala Met Leu Asp Leu Leu Val  
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<211> 853

<212> PRT

<213> Homo sapiens

<400> 5266

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Glu	Glu	Ile	Leu	Pro	Glu	Pro	Gly	Ser	Glu	Thr	Pro	Thr	Val	Ala	Ser
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Glu	Ala	Leu	Ala	Glu	Leu	Leu	His	Gly	Ala	Leu	Leu	Arg	Arg	Gly	Pro
	50					55					60				
Glu	Met	Gly	Tyr	Leu	Pro	Gly	Pro	Pro	Leu	Gly	Pro	Glu	Gly	Gly	Glu
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Glu	Glu	Thr	Thr	Thr	Thr	Ile	Ile	Thr	Thr	Thr	Thr	Val	Thr	Thr	Thr
			85					90					95		
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Tyr	Val	Glu	Ser	Pro	Asp	Leu	Gly	Ser	Pro	Val	Ser	Arg	Thr	Leu	Gly
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Leu	Leu	Asp	Cys	Thr	Tyr	Ser	Ile	His	Val	Tyr	Pro	Gly	Tyr	Gly	Ile
	130					135				140					
Glu	Ile	Gln	Val	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Glu	Glu	Glu	Leu	Leu
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Val	Leu	Ala	Gly	Gly	Ser	Pro	Gly	Leu	Ala	Pro	Arg	Leu	Leu	Ala	
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Asn	Ser	Ser	Met	Leu	Gly	Glu	Gly	Gln	Val	Leu	Arg	Ser	Pro	Thr	Asn
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Arg	Leu	Leu	Leu	His	Phe	Gln	Ser	Pro	Arg	Val	Pro	Arg	Gly	Gly	Gly

4437

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 Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln Trp Thr  
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 Ser Gln Pro Pro Leu Cys Lys Val Ala Tyr Glu Glu Leu Leu Asp Asn  
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 Arg Lys Leu Glu Val Thr Gln Thr Thr Asp Pro Ser Arg Gln Leu Glu  
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 Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro Leu Gly Leu Val Ile  
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 Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr Lys Leu Gln Gly Lys  
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 Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr Ser Pro Ile Thr Val  
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 Tyr Glu Val Ser Ile  
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<211> 885

<212> DNA

<213> Homo sapiens

<400> 5267

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<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

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		20						25					30		
Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala
		35					40					45			
Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val
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Arg	Glu	Ile	Tyr	Met	Asn	Val	Pro	Val	Gly	Ala	Ala	Gly	Val	Arg	Gly
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Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr
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Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro
			100					105					110		
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		115					120					125			
Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn
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Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val
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Asp	Glu	Ala	Lys	Thr	Tyr	Ala	Ala	Glu	Tyr	Thr	Leu	Gln	Thr	Leu	Gly
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Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	Ala
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Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala
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<213> Homo sapiens

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<212> PRT  
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Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
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Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
65           70           75           80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
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Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
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          180          185          190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
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Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
          210          215          220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
225          230          235          240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
          245          250          255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
          260          265          270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
          275          280          285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
          290          295          300
Asp Glu Ile Phe Cys Glu Glu Ile Ala Lys Ala Ser Val Gln Asp Phe
305          310          315          320
Glu Lys Phe Leu Lys Thr Leu
          325

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&lt;210&gt; 5271

&lt;211&gt; 1185

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5271

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120

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 1185

&lt;210&gt; 5272

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5272

Met	Ala	Ala	Leu	Thr	Thr	Leu	Phe	Lys	Tyr	Ile	Asp	Glu	Asn	Gln	Asp
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Arg	Tyr	Ile	Lys	Pro	Val	Gln	Leu	Gln	Gln	Pro	Gln	Arg	Val	Ser	Leu
			20					25					30		
Glu	Cys	Gly	Asn	Val	Thr	Gly	Ala	Ser	Ser	Pro	Ser	Arg	Thr	Pro	Phe
		35				40					45				
Gln	Asn	Pro	Ser	Leu	Leu	Leu	Val	His	Lys	Gln	Lys	Leu	Ala	Lys	Trp
	50				55					60					
Val	Ala	Ile	Gln	Ser	Val	Ser	Ala	Trp	Pro	Glu	Lys	Arg	Gly	Glu	Ile
65				70					75					80	
Arg	Arg	Met	Met	Glu	Val	Ala	Ala	Ala	Asp	Val	Lys	Gln	Leu	Gly	Gly



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<210> 5273
<211> 4580
<212> DNA
<213> Homo sapiens
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240
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900  
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 4560  
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 4580

&lt;210&gt; 5274

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5274

Met	Ser	Gly	Ser	Phe	Glu	Leu	Ser	Val	Gln	Asp	Leu	Asn	Asp	Leu	Leu
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Ser	Asp	Gly	Ser	Gly	Cys	Tyr	Ser	Leu	Pro	Ser	Gln	Pro	Cys	Asn	Glu
			20					25					30		
Val	Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile
			35				40					45			
Pro	Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu
	50					55					60				
Gly	Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp

65		70		75		80									
Ser	Gly	Ile	Thr	Tyr	Leu	Gly	Ile	Lys	Ala	Asn	Asp	Thr	Gln	Glu	Phe
				85					90					95	
Asn	Leu	Ser	Ala	Tyr	Phe	Glu	Arg	Ala	Ala	Asp	Phe	Ile	Asp	Gln	Ala
			100					105					110		
Leu	Ala	Gln	Lys	Asn	Gly	Arg	Val	Leu	Val	His	Cys	Arg	Glu	Gly	Tyr
		115				120						125			
Ser	Arg	Ser	Pro	Thr	Leu	Val	Ile	Ala	Tyr	Leu	Met	Met	Arg	Gln	Lys
	130				135					140					
Met	Asp	Val	Lys	Ser	Ala	Leu	Ser	Ile	Val	Arg	Gln	Asn	Arg	Glu	Ile
145					150					155				160	
Gly	Pro	Asn	Asp	Gly	Phe	Leu	Ala	Gln	Leu	Cys	Gln	Leu	Asn	Asp	Arg
			165					170					175		
Leu	Ala	Lys	Glu	Gly	Lys	Leu	Lys	Pro							
		180						185							

<210> 5275  
 <211> 810  
 <212> DNA  
 <213> Homo sapiens

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 810

<210> 5276  
 <211> 125  
 <212> PRT

<213> Homo sapiens

<400> 5276

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Val Asn Arg Ile Leu Tyr Ile Arg Asn Leu Pro Tyr Lys Ile Thr Ala
      20              25              30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
      35              40              45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
      50              55              60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
      65              70              75              80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
      85              90              95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
      100              105              110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
      115              120              125

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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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240
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420
gcctcctcct gtgtgagtc caccaggagc cacgtgcccc gccttgccct caaggttttt
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540
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612

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5278

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Gln Ala Trp Leu Val Ala Ala Ile Thr Ala Thr Glu Leu Leu Ile Val
      20           25           30
Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
      35           40           45
Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
      50           55           60
Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
 65           70           75           80
Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
      85           90           95
Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly
      100          105          110
Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
      115          120

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&lt;210&gt; 5279

&lt;211&gt; 1225

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5279

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120
ctactcccta agctgattgc aggtggccac aaagtactca tcttctccca gatggtgcgc
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360
gctgatacct gcatcatatt tgattctgac tggaaccac aaaatgactt gcaggctcag
420
gcccgatgtc accgcatagg ccagagcaaa gctgtgaagg tgtatcgctt catcactcga
480
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540
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900

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1225

<210> 5280

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

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			20					25					30		
Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
		35					40					45			
Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
	50					55					60				
Leu	Glu	Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Thr	Tyr	Glu	Arg	Ile	Asp
65					70				75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ile	Asp	Arg	Phe	Ser	
				85					90					95	
Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
			100					105					110		
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
		115					120					125			
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
	130					135					140				
Arg	Ile	Gly	Gln	Ser	Lys	Ala	Val	Lys	Val	Tyr	Arg	Leu	Ile	Thr	Arg
145					150					155				160	
Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala	Ser	Leu	Lys	Leu	Gly
			165					170					175		
Leu	Asp	Lys	Ala	Val	Leu	Gln	Thr	Ser	Thr	Glu	Arg	Ala	Ala	Pro	Met
			180					185					190		
Gly	Thr	Ala	Leu	Ser	Lys	Met	Glu	Val	Glu	Asp	Leu	Leu	Arg	Lys	Gly
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Ala	Tyr	Gly	Ala	Leu	Met	Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys
	210					215					220				
Glu	Glu	Asp	Ile	Asp	Gln	Ile	Leu	Gln	Arg	Arg	Thr	His	Thr	Ile	Thr
225					230				235					240	
Ile	Gln	Ser	Glu	Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val
			245					250					255		
Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
			260					265				270			
Gln	Lys	Trp	Ala	Lys	Ile	Ala	Glu	Leu	Asp	Thr	Glu	Ala	Lys	Asn	Glu



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Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys
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His Tyr Asn Ser Phe Glu Asp Glu Leu Met Glu Phe Ser Glu Leu
 305              310              315              320
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp
      325              330              335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn
      340              345              350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly
      355              360              365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg
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Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile
 385              390              395              400
Lys Ser Phe Ile Trp Glu Leu Ile
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&lt;210&gt; 5281

&lt;211&gt; 336

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5281

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336

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&lt;210&gt; 5282

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5282

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Tyr Arg Ala Gln Ala Phe Leu Val Leu Thr Gly Leu Thr Ala Thr Val
      20              25              30
Gly Asp Thr Ala Ile Ser Ser Glu Lys Thr Gln Arg Met Ser Leu
      35              40              45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val
      50              55              60
Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp
 65              70              75              80
Leu Arg Leu Leu Ile Asn Gly Asp Tyr Glu Glu

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90

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<212> DNA  
<213> Homo sapiens

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 1860  
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 1920  
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 1980  
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 1989

&lt;210&gt; 5284

&lt;211&gt; 258

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5284

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			20					25					30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
		35					40					45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
	50					55					60				
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65					70					75				80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85						90					95	
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
			100					105					110		
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
		115					120					125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
		130				135					140				
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu	
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Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165						170					175	
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
			180					185					190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

	195		200		205	
Lys	Ala	Val	Ala	Lys	Gly	Asp
	210		215		220	
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Tyr	Val	Gly	Val	Ala	Val	Ala
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His	Leu					

<210> 5285  
 <211> 2155  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5286

&lt;211&gt; 628

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5286

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Ala	Arg	Thr	Asp	Glu	Val	Pro	Ala	Gly	Gly	Ser	Arg	Ser	Glu	Ala	Glu
			20					25					30		
Asp	Glu	Asp	Asp	Glu	Asp	Tyr	Val	Pro	Tyr	Val	Pro	Leu	Arg	Gln	Arg
		35				40					45				
Arg	Gln	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Gln	Arg	Arg	Arg	Lys	Gly	Ala
	50				55					60					
Ala	Glu	Glu	Glu	Gln	Gln	Asp	Ser	Gly	Ser	Glu	Pro	Arg	Gly	Asp	Glu
65				70					75					80	
Asp	Asp	Ile	Pro	Leu	Gly	Pro	Gln	Ser	Asn	Val	Ser	Leu	Leu	Asp	Gln
			85				90						95		
His	Gln	His	Leu	Lys	Glu	Lys	Ala	Glu	Ala	Arg	Lys	Glu	Ser	Ala	Lys

4456

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 Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu  
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 Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp  
                     565                      570                      575  
 Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly  
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 Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln  
                     595                      600                      605  
 Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser  
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<210> 5287  
 <211> 581  
 <212> DNA  
 <213> Homo sapiens

<400> 5287  
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<210> 5288  
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 <212> PRT  
 <213> Homo sapiens

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 Glu Pro Pro Ala Ser Pro Ala Pro His Ser Ile Pro Thr Gly Trp Gly  
                     20                      25                      30  
 Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro  
                     35                      40                      45  
 Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

50		55		60											
Ala	Pro	Lys	Asp	Ile	Met	Thr	Asn	Thr	His	Ala	Lys	Ser	Ile	Leu	Asn
65					70					75					80
Ser	Met	Asn	Ser	Leu	Arg	Lys	Ser	Asn	Thr	Leu	Cys	Asp	Val	Thr	Leu
			85						90					95	
Arg	Val	Glu	Gln	Lys	Asp	Phe	Pro	Ala	His	Arg	Ile	Val	Leu	Ala	Ala
			100					105					110		
Cys	Ser	Asp	Tyr	Phe	Cys	Ala	Met	Phe	Thr	Ser	Glu	Leu	Ser	Glu	Lys
		115					120				125				
Gly	Lys	Pro	Tyr	Val	Asp	Ile	Gln	Gly	Leu	Thr	Ala	Ser	Thr	Met	Glu
	130					135					140				
Ile	Leu	Leu	Asp	Phe	Val	Tyr	Thr	Glu	Thr	Val	His	Val	Thr	Val	Glu
145				150						155					160
Asn	Val	Gln	Glu	Leu	Leu	Pro	Ala	Ala	Cys	Leu	Leu	Gln	Leu	Lys	Gly
				165				170					175		
Val	Lys	Gln	Ala	Cys	Cys	Glu	Phe	Leu	Glu	Ser	Gln	Leu	Asp	Pro	Ser
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Arg															

&lt;210&gt; 5289

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5289

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180

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360

c

361

&lt;210&gt; 5290

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5290

Met Leu Ser Tyr Tyr Arg Thr Met Glu Trp His Glu Lys His Asp Asn

1

5

10

15

Glu Asp Thr Ala Ser Ala Ser Glu Gly Glu Val Tyr Asp Arg Val Leu

20

25

30

Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His

35

40

45

Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr



50		55		60
Leu Leu Gly Thr Asp	Leu Ser Ile Phe Lys Tyr Asp Asp Phe Ile Phe			
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Val Leu Asp Ile Ile Ser Arg Leu Met Gln Val Gly Glu Glu Phe				
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 <212> DNA  
 <213> Homo sapiens

<400> 5291  
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 120  
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 767

<210> 5292  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

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 Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro  
 35 40 45  
 Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu  
 50 55 60  
 Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

65					70					75				80
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg
				85					90				95	
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His
			100					105				110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp
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Gln	Ala	Pro	Arg	Leu	Lys	Arg	Thr	Val	Pro	Val	Arg	Arg	Ser	
	130					135					140			

&lt;210&gt; 5293

&lt;211&gt; 1428

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5293

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180
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<400> 5298

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&lt;210&gt; 5302

&lt;211&gt; 1339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5302

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Pro Ile Ile Ala Arg	Tyr Val Arg Ile Val	Pro Leu Asp Trp Asn Gly
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4475

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<210> 5308  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

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 Asp His His Arg Gly His Gly Pro Thr Ser Val Ile Trp Glu Thr Gly  
 35 40 45  
 Leu Gly Arg Gly Gly Asp Phe Pro Lys Ser Pro Ser Ile His Asp Arg  
 50 55 60  
 Gly Arg Ala Trp Glu Leu Gly Thr Gln Gly Ser Ser Lys Arg Ser Arg  
 65 70 75 80  
 Ser Leu Cys Tyr Pro Gln Ile His Lys Leu Arg Ile Thr Cys Ile His  
 85 90 95  
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<210> 5309  
 <211> 2078

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5309

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&lt;210&gt; 5310

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5310

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			20					25					30		
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
			35				40					45			
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
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Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
65					70				75					80	
Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
				85					90					95	
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
			100					105					110		
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
			115				120					125			
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
			130			135					140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
145					150					155				160	
Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
				165				170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
			180					185					190		
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
		195				200							205		
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

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Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser
225              230              235              240
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn
      245              250              255
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser
      260              265              270
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr
      275              280              285
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala
      290              295              300
Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln
305              310              315              320
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala
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Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly
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Gln Cys Thr Val Thr Glu Val
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<211> 572
<212> DNA
<213> Homo sapiens

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<210> 5312
<211> 190
<212> PRT
<213> Homo sapiens

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Ile Lys Ser Ser Asp Thr Arg Cys Cys Glu Leu Cys Lys Tyr Glu Phe			
	35	40	45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln			
	50	55	60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His			
65	70	75	80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp			
	85	90	95
Arg Pro Ala Glu Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu			
	100	105	110
Trp Pro Phe Trp Thr Lys Leu Val Val Val Ala Ile Gly Phe Thr Arg			
	115	120	125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp			
	130	135	140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro			
145	150	155	160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro			
	165	170	175
Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp			
	180	185	190

&lt;210&gt; 5313

&lt;211&gt; 322

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5313

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322

&lt;210&gt; 5314

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5314

Arg Gly Arg Arg Glu Glu Gly Asp Lys Arg Ser Val Ala Pro Gln			
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Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly			
	20	25	30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser			

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<210> 5315
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<212> DNA
<213> Homo sapiens
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4484

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 2298

&lt;210&gt; 5316

&lt;211&gt; 544

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5316

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Gln	Lys	Leu	Asn	Cys	Arg	Gln	Ile	Pro	Lys	Leu	Leu	Arg	Gln	Leu	Gln
			20					25					30		
Glu	Phe	Thr	Asp	Leu	Gly	His	Arg	Leu	Asp	Cys	Leu	Asp	Leu	Lys	Gly
	35						40					45			
Glu	Lys	Leu	Asp	Tyr	Lys	Thr	Cys	Glu	Ala	Leu	Glu	Glu	Val	Phe	Lys

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Arg Leu Gln Phe Lys Val	Val Asp Leu Glu Gln Thr Asn Leu Asp Glu	
65	70	75
Asp Gly Ala Ser Ala Leu Phe Asp Met Ile Glu Tyr Tyr Glu Ser Ala		80
	85	90
Thr His Leu Asn Ile Ser Phe Asn Lys His Ile Gly Thr Arg Gly Trp		95
	100	105
Gln Ala Ala Ala His Met Met Arg Lys Thr Ser Cys Leu Gln Tyr Leu		110
	115	120
Asp Ala Arg Asn Thr Pro Leu Asp His Ser Ala Pro Phe Val Ala		125
	130	135
Arg Ala Leu Arg Ile Arg Ser Ser Leu Ala Val Leu His Leu Glu Asn		140
	145	150
Ala Ser Leu Ser Gly Arg Pro Leu Met Leu Leu Ala Thr Ala Leu Lys		155
	165	170
Met Asn Met Asn Leu Arg Glu Leu Tyr Leu Ala Asp Asn Lys Leu Asn		175
	180	185
Gly Leu Gln Asp Ser Ala Gln Leu Gly Asn Leu Leu Lys Phe Asn Cys		190
	195	200
Ser Leu Gln Ile Leu Asp Leu Arg Asn Asn His Val Leu Asp Ser Gly		205
	210	215
Leu Ala Tyr Ile Cys Glu Gly Leu Lys Glu Gln Arg Lys Gly Leu Val		220
	225	230
Thr Leu Val Leu Trp Asn Asn Gln Leu Thr His Thr Gly Met Ala Phe		235
	245	250
Leu Gly Met Thr Leu Ser His Thr Gln Ser Leu Glu Thr Leu Asn Leu		255
	260	265
Gly His Asn Pro Ile Gly Asn Glu Gly Val Arg His Leu Lys Asn Gly		270
	275	280
Leu Ile Ser Asn Arg Ser Val Leu Arg Leu Gly Leu Ala Ser Thr Lys		285
	290	295
Leu Thr Cys Glu Gly Ala Val Ala Val Ala Glu Phe Ile Ala Glu Ser		300
	305	310
Pro Arg Leu Leu Arg Leu Asp Leu Arg Glu Asn Glu Ile Lys Thr Gly		315
	325	330
Gly Leu Met Ala Leu Ser Leu Ala Leu Lys Val Asn His Ser Leu Leu		335
	340	345
Arg Leu Asp Leu Asp Arg Glu Pro Lys Lys Glu Ala Val Lys Ser Phe		350
	355	360
Ile Glu Thr Gln Lys Ala Leu Leu Ala Glu Ile Gln Asn Gly Cys Lys		365
	370	375
Arg Asn Leu Val Leu Ala Arg Glu Arg Glu Glu Lys Glu Gln Pro Pro		380
	385	390
Gln Leu Ser Ala Ser Met Pro Glu Thr Thr Ala Thr Glu Pro Gln Pro		395
	405	410
Asp Asp Glu Pro Ala Ala Gly Val Gln Asn Gly Ala Pro Ser Pro Ala		415
	420	425
Pro Ser Pro Asp Ser Asp Ser Asp Ser Asp Ser Asp Gly Glu Glu Glu		430
	435	440
Glu Glu Glu Glu Gly Glu Arg Asp Glu Thr Pro Ser Gly Ala Ile Asp		445
	450	455
Thr Arg Asp Thr Gly Ser Ser Glu Pro Gln Pro Pro Glu Pro Pro		460
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Arg Ser Gly Pro Pro Leu Pro Asn Gly Leu Lys Pro Glu Phe Ala Leu		475
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<212> DNA
<213> Homo sapiens
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<212> PRT

<213> Homo sapiens

<400> 5320

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<213> Homo sapiens

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&lt;210&gt; 5322

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5322

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&lt;210&gt; 5326

&lt;211&gt; 234

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5326

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&lt;210&gt; 5327

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&lt;400&gt; 5327

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&lt;210&gt; 5328

&lt;211&gt; 694

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5328

Glu	His	Ser	Gly	Leu	Tyr	Val	Asn	Asn	Asn	Gly	Ile	Ile	Ser	Phe	Leu
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Lys	Glu	Val	Ser	Gln	Phe	Thr	Pro	Val	Ala	Phe	Pro	Ile	Ala	Lys	Asp
			20					25					30		
Arg	Cys	Val	Val	Ala	Ala	Phe	Trp	Ala	Asp	Val	Asp	Asn	Arg	Arg	Ala
		35					40					45			
Gly	Asp	Val	Tyr	Tyr	Arg	Glu	Ala	Thr	Asp	Pro	Ala	Met	Leu	Arg	Arg

50	55	60
Ala Thr Glu Asp Val Arg His Tyr Phe Pro Glu Leu Leu Asp Phe Asn		
65	70	75
Ala Thr Trp Val Phe Val Ala Thr Trp Tyr Arg Val Thr Phe Phe Gly		80
	85	90
Gly Ser Ser Ser Ser Pro Val Asn Thr Phe Gln Thr Val Leu Ile Thr		95
	100	105
Asp Gly Lys Leu Ser Phe Thr Ile Phe Asn Tyr Glu Ser Ile Val Trp		110
	115	120
Thr Thr Gly Thr His Ala Ser Ser Gly Gly Asn Ala Thr Gly Leu Gly		125
	130	135
Gly Ile Ala Ala Gln Ala Gly Phe Asn Ala Gly Asp Gly Gln Arg Tyr		140
145	150	155
Phe Ser Ile Pro Gly Ser Arg Thr Ala Asp Met Ala Glu Val Glu Thr		160
	165	170
Thr Thr Asn Val Gly Val Pro Gly Arg Trp Ala Phe Arg Ile Asp Asp		175
	180	185
Ala Gln Val Arg Val Gly Gly Cys Gly His Thr Thr Ser Val Cys Leu		190
	195	200
Ala Leu Arg Pro Cys Leu Asn Gly Gly Lys Cys Ile Asp Asp Cys Val		205
210	215	220
Thr Gly Asn Pro Ser Tyr Thr Cys Ser Cys Leu Ser Gly Phe Thr Gly		225
225	230	235
Arg Arg Cys His Leu Asp Val Asn Glu Cys Ala Ser Gln Pro Cys Gln		240
	245	250
Asn Gly Gly Thr Cys Thr His Gly Ile Asn Ser Phe Arg Cys Gln Cys		255
	260	265
Pro Ala Gly Phe Gly Gly Pro Thr Cys Glu Thr Ala Gln Ser Pro Cys		270
	275	280
Asp Thr Lys Glu Cys Gln His Gly Gly Gln Cys Gln Val Glu Asn Gly		285
290	295	300
Ser Ala Val Cys Val Cys Gln Ala Gly Tyr Thr Gly Ala Ala Cys Glu		305
305	310	315
Met Asp Val Asp Asp Cys Ser Pro Asp Pro Cys Leu Asn Gly Gly Ser		320
	325	330
Cys Val Asp Leu Val Gly Asn Tyr Thr Cys Leu Cys Ala Glu Pro Phe		335
	340	345
Lys Gly Leu Arg Cys Glu Thr Gly Asp His Pro Val Pro His Ala Cys		350
	355	360
Leu Ser Ala Pro Cys His Asn Gly Gly Thr Cys Val Asp Ala Asp Gln		365
370	375	380
Gly Tyr Val Cys Glu Cys Pro Glu Gly Phe Met Gly Leu Asp Cys Arg		385
385	390	395
Glu Arg Val Xaa Pro Met Thr Val Ser Ala Ala Thr Glu Ala Asp Ala		400
	405	410
Trp Ala Pro Thr Pro Pro Ser Ala His Ala Pro Cys Gly Xaa Ser Leu		415
	420	425
Gly Phe Ser Val Asn Leu Lys Ser Gln Pro Xaa Pro Cys Asn Met Asn		430
	435	440
Thr Gln Cys Pro Asp Gly Gly Tyr Cys Met Glu His Gly Gly Ser Tyr		445
	450	455
Leu Cys Val Cys His Thr Asp His Asn Ala Ser His Ser Leu Pro Ser		460
465	470	475
Pro Cys Asp Ser Asp Pro Cys Phe Asn Gly Gly Ser Cys Asp Ala His		480

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<210> 5329
<211> 2582
<212> DNA
<213> Homo sapiens
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<210> 5330

<211> 308

<212> PRT

<213> Homo sapiens

<400> 5330

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			20					25					30		
Ala	Leu	Arg	Lys	Lys	Glu	Leu	Asp	Glu	Glu	Glu	Ser	Ile	Arg	Lys	Lys
		35					40					45			
Ala	Val	Gln	Phe	Gly	Thr	Gly	Glu	Leu	Cys	Asp	Ala	Ile	Ser	Ala	Val
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Glu	Glu	Lys	Val	Ser	Tyr	Leu	Arg	Pro	Leu	Asp	Phe	Glu	Glu	Ala	Arg
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Phe	Gln	Ile	Asp	Gly	Tyr	Val	Thr	Asp	His	Ile	Glu	Val	Val	Gln	Asp
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His	Ser	Ala	Leu	Phe	Lys	Val	Leu	Ala	Phe	Phe	Glu	Thr	Asp	Met	Glu
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Arg	Arg	Cys	Lys	Met	His	Lys	Arg	Arg	Ile	Ala	Met	Leu	Glu	Pro	Leu
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Thr	Val	Asp	Leu	Asn	Pro	Gln	Tyr	Tyr	Leu	Leu	Val	Asn	Arg	Gln	Ile
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Ala	Ile	Ala	Asp	Arg	Leu	Arg	Asp	Pro	Asp	Ser	His	Ile	Val	Lys	Lys
		180						185					190		
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	195						200					205			
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Tyr	Gly	Lys	Ile	Ile	Thr	Ala	Asp	Pro	Lys	Lys	Glu	Leu	Glu	Asn	Leu
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&lt;210&gt; 5331

&lt;211&gt; 1069

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5331

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&lt;210&gt; 5332

&lt;211&gt; 61

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5332

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Lys	Gln	Lys	Arg	Ala	Asn	His	Arg	Glu	Arg	Asn	Lys	Thr	Arg	Gly	Lys
			20					25					30		
Met	Ile	Thr	Asp	Ser	Gly	Lys	Phe	Ser	Gly	Ser	Ser	Pro	Ala	Pro	Pro
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<210> 5333

<211> 883

<212> DNA

<213> Homo sapiens

<400> 5333

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<210> 5334

<211> 269

<212> PRT

<213> Homo sapiens

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 Ile Gln Ala Arg Met Gly Val Phe Ala Gln Ala Asp Gly Ser Ala Tyr  
 50 55 60  
 Ile Glu Gln Gly Asn Thr Lys Ala Leu Ala Val Val Tyr Gly Pro His  
 65 70 75 80  
 Glu Ile Arg Gly Ser Arg Ala Arg Ala Leu Pro Asp Arg Ala Leu Val  
 85 90 95  
 Asn Cys Gln Tyr Ser Ser Ala Thr Phe Ser Thr Gly Glu Arg Lys Arg  
 100 105 110  
 Arg Pro His Gly Asp Arg Lys Ser Cys Glu Met Gly Leu Gln Leu Arg  
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 Gln Thr Phe Glu Ala Ala Ile Leu Thr Gln Leu His Pro Arg Ser Gln  
 130 135 140  
 Ile Asp Ile Tyr Val Gln Val Leu Gln Ala Asp Gly Gly Thr Tyr Ala  
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 165 170 175  
 Met Arg Asp Phe Val Cys Ala Cys Ser Ala Gly Phe Val Asp Gly Thr  
 180 185 190  
 Ala Leu Ala Asp Leu Ser His Val Glu Glu Ala Ala Gly Gly Pro Gln  
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 210 215 220  
 Met Asp Ala Arg Leu His Glu Asp His Leu Glu Arg Val Leu Glu Ala  
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 Arg Gln His Val Arg Glu Ala Ser Ile Leu Leu Gly Asp  
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&lt;210&gt; 5335

&lt;211&gt; 4282

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5335

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<211> 766

<212> PRT

<213> Homo sapiens

<400> 5336

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Thr	Leu	Arg	Leu	His	Pro	Asp	Ile	Phe	Leu	Pro	Ser	Glu	Ile	Cys	Asp
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His	Thr	Leu	Val	Ser	Leu	Ser	Leu	Phe	Gly	Cys	Thr	Asn	Ile	Phe	Tyr
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	690	700
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Ala Thr Ala Arg Gln Glu Thr Lys Glu Met Ala Arg Lys Val Ile Glu		735
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&lt;210&gt; 5337

&lt;211&gt; 2742

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5337

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&lt;210&gt; 5340

&lt;211&gt; 217

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5340

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Ala	Lys	Lys	Ile	Val	Ser	Thr	His	His	Leu	Leu	Ala	Asp	Val	Tyr	Gly	145	150	155	160
Val	Thr	Glu	Val	Leu	His	Gly	Leu	Gln	Leu	Lys	Ile	Gly	Ile	Leu	Lys	165	170	175	
Asn	Lys	His	His	Pro	Asp	Leu	His	Leu	Trp	Ala	Cys	Ser	Gly	Lys	Arg	180	185	190	
Lys	Asp	Gln	Asp	Gln	Ile	Ile	Ala	Gly	Val	Glu	Lys	Lys	Ile	Ala	Gln	195	200	205	
Asp	Thr	Val	Asn	Arg	Glu	Glu	Lys	Lys								210	215		



&lt;210&gt; 5341

&lt;211&gt; 2455

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5341

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&lt;210&gt; 5342

&lt;211&gt; 690

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5342

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Phe	Gly	Glu	Leu	Asp	Ala	Arg	Ala	Cys	Gln	Ala	Ala	Trp	Ala	Leu	Lys	
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Ala	Glu	Leu	Gly	Asp	Pro	Ala	Ser	Leu	Cys	Ala	Gly	Glu	Pro	Thr	Ala	
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Gly	Leu	Ala	Lys	Leu	Gly	Cys	Pro	Thr	Ala	Trp	Ile	Asn	Pro	His	Gly	
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Leu	Val	Val	Asp	Pro	Asp	Leu	Arg	Glu	Ser	Leu	Glu	Glu	Ile	Leu	Pro	
225					230					235					240	
Lys	Leu	Gln	Ala	Glu	Asn	Ile	Arg	Cys	Phe	Tyr	Leu	Ser	His	Thr	Ser	
				245					250					255		
Pro	Thr	Pro	Gly	Val	Gly	Ala	Leu	Gly	Ala	Ala	Leu	Asp	Ala	Ala	Pro	
			260					265					270			
Ser	His	Pro	Val	Pro	Ala	Asp	Leu	Arg	Ala	Gly	Ile	Thr	Trp	Arg	Ser	
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Pro	Ala	Leu	Phe	Ile	Tyr	Thr	Ser	Gly	Thr	Thr	Gly	Leu	Pro	Lys	Pro	
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Tyr	His	Val	Met	Gly	Leu	Val	Val	Gly	Ile	Leu	Gly	Cys	Leu	Asp	Leu	
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Gly	Ala	Thr	Cys	Val	Leu	Ala	Pro	Lys	Phe	Ser	Thr	Ser	Cys	Phe	Trp	
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Asp	Asp	Cys	Arg	Gln	His	Gly	Val	Thr	Val	Ile	Leu	Tyr	Val	Gly	Glu	
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His	Thr	Val	Arg	Leu	Ala	Met	Gly	Asn	Gly	Leu	Arg	Ala	Asp	Val	Trp	
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Glu	Thr	Phe	Gln	Gln	Arg	Phe	Gly	Pro	Ile	Arg	Ile	Trp	Glu	Val	Tyr	
			420					425					430			
Gly	Ser	Thr	Glu	Gly	Asn	Met	Gly	Leu	Val	Asn	Tyr	Val	Gly	Arg	Cys	
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Gly	Ala	Leu	Gly	Lys	Met	Ser	Cys	Leu	Leu	Arg	Met	Leu	Ser	Pro	Phe	
			450			455					460					
Glu	Leu	Val	Gln	Phe	Asp	Met	Glu	Ala	Ala	Glu	Pro	Val	Arg	Asp	Asn	
465					470					475					480	
Gln	Gly	Phe	Cys	Ile	Pro	Val	Gly	Leu	Gly	Glu	Pro	Gly	Leu	Leu	Leu	
				485					490					495		
Thr	Lys	Val	Val	Ser	Gln	Gln	Pro	Phe	Val	Gly	Tyr	Arg	Gly	Pro	Arg	
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Glu	Leu	Ser	Glu	Arg	Lys	Leu	Val	Arg	Asn	Val	Arg	Gln	Ser	Gly	Asp	
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Val	Tyr	Tyr	Asn	Thr	Gly	Asp	Val	Leu	Ala	Met	Asp	Arg	Glu	Gly	Phe	

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 Leu Tyr Phe Arg Asp Arg Leu Gly Asp Thr Phe Arg Trp Lys Gly Glu  
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 Asn Val Ser Thr His Glu Val Glu Gly Val Leu Ser Gln Val Asp Phe  
                     565                      570                      575  
 Leu Gln Gln Val Asn Val Tyr Gly Val Cys Val Pro Gly Cys Glu Gly  
                     580                      585                      590  
 Lys Val Gly Met Ala Ala Val Gln Leu Ala Pro Gly Gln Thr Phe Asp  
                     595                      600                      605  
 Gly Glu Lys Leu Tyr Gln His Val Arg Ala Trp Leu Pro Ala Tyr Ala  
                     610                      615                      620  
 Thr Pro His Phe Ile Arg Ile Gln Asp Ala Met Glu Val Thr Ser Thr  
 625                      630                      635                      640  
 Phe Lys Leu Met Lys Thr Arg Leu Val Arg Glu Gly Phe Asn Val Gly  
                     645                      650                      655  
 Ile Val Val Asp Pro Leu Phe Val Leu Asp Asn Arg Ala Gln Ser Phe  
                     660                      665                      670  
 Arg Pro Leu Thr Ala Glu Met Tyr Gln Ala Val Cys Glu Gly Thr Trp  
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 Lys Leu  
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 <213> Homo sapiens

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 cggcgggacag attttgtggc tggctctctg agtggacggg tcatagtggc tgggggactt  
 180  
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 240  
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 Glu Arg Ser Phe Phe Leu Lys Lys Arg Arg Ala Asp Phe Val Ala Gly  
 35 40 45  
 Ser Leu Ser Gly Arg Val Ile Val Ala Gly Gly Leu Gly Asn Gln Pro  
 50 55 60  
 Thr Val Leu Glu Thr Ala Glu Ala Phe His Pro Gly Lys Asn Lys Trp  
 65 70 75 80  
 Glu Ile Leu Pro Ala Met Pro Thr Pro Arg Cys Ala Cys Ser Ser Ile  
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&lt;210&gt; 5346

&lt;211&gt; 534

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5346

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			20					25					30		
Ser	Val	Lys	Ala	Leu	Leu	Leu	Lys	Gly	Lys	Ala	Pro	Val	Asp	Pro	Glu
		35					40					45			
Cys	Thr	Ala	Lys	Val	Gly	Lys	Ala	His	Val	Tyr	Cys	Glu	Gly	Asn	Asp

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Val Tyr Asp Val Met Leu Asn Gln Thr Asn Leu Gln Phe Asn Asn Asn		
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Lys Tyr Tyr Leu Ile Gln Leu Leu Glu Asp Asp Ala Gln Arg Asn Phe		80
	85	90
Ser Val Trp Met Arg Trp Gly Arg Val Gly Lys Met Gly Gln His Ser		95
	100	105
Leu Val Ala Cys Ser Gly Asn Leu Asn Lys Ala Lys Glu Ile Phe Gln		110
	115	120
Lys Lys Phe Leu Asp Lys Thr Lys Asn Asn Trp Glu Asp Arg Glu Lys		125
	130	135
Phe Glu Lys Val Pro Gly Lys Tyr Asp Met Leu Gln Met Asp Tyr Ala		140
145	150	155
Thr Asn Thr Gln Asp Glu Glu Glu Thr Lys Lys Glu Glu Ser Leu Lys		160
	165	170
Ser Pro Leu Lys Pro Glu Ser Gln Leu Asp Leu Arg Val Gln Glu Leu		175
	180	185
Ile Lys Leu Ile Cys Asn Val Gln Ala Met Glu Glu Met Met Met Glu		190
	195	200
Met Lys Tyr Asn Thr Lys Lys Ala Pro Leu Gly Lys Leu Thr Val Ala		205
	210	215
Gln Ile Lys Ala Gly Tyr Gln Ser Leu Lys Lys Ile Glu Asp Cys Ile		220
225	230	235
Arg Ala Gly Gln His Gly Arg Ala Leu Met Glu Ala Cys Asn Glu Phe		240
	245	250
Tyr Thr Arg Ile Pro His Asp Phe Gly Leu Arg Thr Pro Pro Leu Ile		255
	260	265
Arg Thr Gln Lys Glu Leu Ser Glu Lys Ile Gln Leu Leu Glu Ala Leu		270
	275	280
Gly Asp Ile Glu Ile Ala Ile Lys Leu Val Lys Thr Glu Leu Gln Ser		285
	290	295
Pro Glu His Pro Leu Asp Gln His Tyr Arg Asn Leu His Cys Ala Leu		300
305	310	315
Arg Pro Leu Asp His Glu Ser Tyr Glu Phe Lys Val Ile Ser Gln Tyr		320
	325	330
Leu Gln Ser Thr His Ala Pro Thr His Ser Asp Tyr Thr Met Thr Leu		335
	340	345
Leu Asp Leu Phe Glu Val Glu Lys Asp Gly Glu Lys Glu Ala Phe Arg		350
	355	360
Glu Asp Leu His Asn Arg Met Leu Leu Trp His Gly Ser Arg Met Ser		365
	370	375
Asn Trp Val Gly Ile Leu Ser His Gly Leu Arg Ile Ala Pro Pro Glu		380
385	390	395
Ala Pro Ile Thr Gly Tyr Met Phe Gly Lys Gly Ile Tyr Phe Ala Asp		400
	405	410
Met Ser Ser Lys Ser Ala Asn Tyr Cys Phe Ala Ser Arg Leu Lys Asn		415
	420	425
Thr Gly Leu Leu Leu Leu Ser Glu Val Ala Leu Gly Gln Cys Asn Glu		430
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Leu Leu Glu Ala Asn Pro Lys Ala Glu Gly Leu Leu Gln Gly Lys His		445
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<210> 5348  
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 Tyr Leu Leu Leu Pro Pro Pro Thr Leu Leu Gln Asp Glu Leu Leu Phe  
 35 40 45  
 Leu Gly Gly Pro Ala Ser Ser Ala Tyr Ala Leu Ser Pro Phe Ser Ala  
 50 55 60  
 Ser Gly Gly Trp Gly Arg Ala Gly His Leu His Pro Lys Gly Arg Glu  
 65 70 75 80  
 Leu Asp Pro Ala Ala Pro Pro Glu Gly Gln Leu Leu Arg Glu Val Arg  
 85 90 95  
 Ala Leu Gly Val Pro Phe Val Pro Arg Thr Ser Val Asp Ala Trp Leu  
 100 105 110  
 Val His Ser Val Ala Ala Gly Ser Ala Asp Glu Ala His Gly Leu Leu  
 115 120 125  
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 Gly Gly Ser Gln Ala Val Gln Gly Gly Cys Gly Asp Ser Arg Ala Ala  
 145 150 155 160  
 Arg Ser Gly Pro Leu Asp Ala Gly Glu Glu Glu Lys Ala Pro Ala Glu  
 165 170 175  
 Pro Thr Ala Gln Val Pro Asp Ala Gly Gly Cys Ala Ser Glu Glu Asn  
 180 185 190  
 Gly Val Leu Arg Glu Lys His Glu Ala Val Asp His Ser Ser Gln His  
 195 200 205  
 Glu Glu Asn Glu Glu Arg Val Ser Ala Gln Lys Glu Asn Ser Leu Gln  
 210 215 220  
 Gln Asn Asp Asp Asp Glu Asn Lys Ile Ala Glu Lys Pro Asp Trp Glu  
 225 230 235 240  
 Ala Glu Lys Thr Thr Glu Ser Arg Asn Glu Arg His Leu Asn Gly Thr  
 245 250 255  
 Asp Thr Ser Phe Ser Leu Glu Asp Leu Phe Gln Leu Leu Ser Ser Gln  
 260 265 270  
 Pro Glu Asn Ser Leu Glu Gly Ile Ser Leu Gly Asp Ile Pro Leu Pro  
 275 280 285  
 Gly Ser Ile Ser Asp Gly Met Asn Ser Ser Ala His Tyr His Val Asn  
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 305 310 315 320  
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 Gln Ser Gln Glu Pro Phe Leu Gln Leu Asn Ser His Thr Thr Asn Pro

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 355 360 365  
 Asp Asn His Met Arg Asn Leu Thr Ser Gln Asp Leu Leu Tyr Asp Leu  
 370 375 380  
 Asp Ile Asn Ile Phe Asp Glu Ile Asn Leu Met Ser Leu Ala Thr Glu  
 385 390 395 400  
 Asp Asn Phe Asp Pro Ile Asp Val Ser Gln Leu Phe Asp Glu Ser Asp  
 405 410 415  
 Ser Asp Ser Gly Leu Ser Leu Asp Ser Ser His Asn Asn Thr Ser Val  
 420 425 430  
 Ile Lys Ser Asn Ser Ser His Ser Val Cys Asp Glu Gly Ala Ile Gly  
 435 440 445  
 Tyr Cys Thr Asp His Glu Ser Ser Ser His His Asp Leu Glu Gly Ala  
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 Val Gly Gly Tyr Tyr Pro Glu Pro Ser Lys Leu Cys His Leu Asp Gln  
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 500 505 510  
 Pro Phe Pro Trp Pro Gly Lys Ser Gln Lys Ile Arg Ser Arg Tyr Leu  
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 Ser Phe Asn Ser Met Leu Ser Arg Tyr Tyr Leu Thr Asp Leu Gln Val  
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 Asp Ile Arg Arg Arg Gly Lys Asn Lys Val Ala Ala  
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 Asp Val Cys Asn Leu Gln Ala Lys Lys Glu Thr Leu Lys Arg Glu Gln  
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 Ala Gln Cys Asn Lys Ala Ile Asn Ile Met Lys Gln Lys Leu His Asp  
 625 630 635 640  
 Leu Tyr His Asp Ile Phe Ser Arg Leu Arg Asp Asp Gln Gly Arg Pro  
 645 650 655  
 Val Asn Pro Asn His Tyr Ala Leu Gln Cys Thr His Asp Gly Ser Ile  
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 Leu Ile Val Pro Lys Glu Leu Val Ala Ser Gly His Lys Lys Glu Thr  
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 Gln Lys Gly Lys Arg Lys  
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&lt;210&gt; 5349

&lt;211&gt; 425

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5349

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<400> 5350  
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 Lys Ala Glu Val Arg Glu Ala Gly Gln Pro Ile Pro Val Ser Leu Leu  
 65 70 75 80  
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 Gly His Glu Gly Leu Gly Arg Leu Leu Trp Gln Ser Gly Pro Leu Gln  
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<210> 5352

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<212> PRT

<213> Homo sapiens

<400> 5352

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			20					25					30		
Asn	Cys	Asp	Thr	Arg	Asn	Gly	Ser	Asn	Lys	Ser	Asp	Phe	Asp	Trp	His
		35				40						45			
Gln	Asp	Ala	Leu	Ser	Lys	Ser	Leu	Gln	Gln	Asn	Leu	Pro	Ser	Arg	Ser
	50					55					60				
Val	Ser	Lys	Pro	Ser	Leu	Phe	Ser	Ser	Val	Gln	Leu	Tyr	Arg	Gln	Ser
65					70				75					80	
Ser	Lys	Met	Cys	Gly	Thr	Val	Phe	Thr	Gly	Ala	Ser	Arg	Phe	Arg	Cys
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<211> 4217<212> DNA

<213> Homo sapiens

<400> 5353

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<210> 5354  
 <211> 605  
 <212> PRT  
 <213> Homo sapiens

<400> 5354  
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 Gln Val Cys Gln Phe Ser Asn Val Leu Arg Lys Gln Gly Ile Gln Lys  
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 Gly Asp Arg Val Ala Ile Tyr Met Pro Met Ile Pro Glu Leu Val Val  
 65 70 75 80  
 Ala Met Leu Ala Cys Ala Arg Ile Gly Ala Leu His Ser Ile Val Phe  
 85 90 95  
 Ala Gly Phe Ser Ser Glu Ser Leu Cys Glu Arg Ile Leu Asp Ser Ser  
 100 105 110  
 Cys Ser Leu Leu Ile Thr Thr Asp Ala Phe Tyr Arg Gly Glu Lys Leu  
 115 120 125  
 Val Asn Leu Lys Glu Leu Ala Asp Glu Ala Leu Gln Lys Cys Gln Glu  
 130 135 140  
 Lys Gly Phe Pro Val Arg Cys Cys Ile Val Val Lys His Leu Gly Arg  
 145 150 155 160  
 Ala Glu Leu Gly Met Gly Thr Pro Pro Ala Ser Pro Pro Gln Leu Arg  
 165 170 175  
 Gly His Ala Asp Val Gln Ile Ser Trp Asn Gln Gly Ile Asp Leu Trp  
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 Trp His Glu Leu Met Gln Glu Ala Gly Asp Glu Cys Glu Pro Glu Trp  
 195 200 205  
 Cys Asp Ala Glu Asp Pro Leu Phe Ile Leu Tyr Thr Ser Gly Ser Thr  
 210 215 220  
 Gly Lys Pro Lys Gly Val Val His Thr Val Gly Gly Tyr Met Leu Tyr  
 225 230 235 240  
 Val Ala Thr Thr Phe Lys Tyr Val Phe Asp Phe His Ala Glu Asp Val  
 245 250 255  
 Phe Trp Cys Thr Ala Asp Ile Gly Trp Ile Thr Gly His Ser Tyr Val  
 260 265 270  
 Thr Tyr Gly Pro Leu Ala Asn Gly Ala Thr Ser Val Leu Phe Glu Gly



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Tyr Lys Val Thr Lys Phe Tyr Thr Ala Pro Thr Ala Ile Arg Leu Leu		
305	310	315
Met Lys Phe Gly Asp Glu Pro Val Thr Lys His Ser Arg Ala Ser Leu		
325	330	335
Gln Val Leu Gly Thr Val Gly Glu Pro Ile Asn Pro Glu Ala Trp Leu		
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Trp Tyr His Arg Val Val Gly Ala Gln Arg Cys Pro Ile Val Asp Thr		
355	360	365
Phe Trp Gln Thr Glu Thr Gly Gly His Met Leu Thr Pro Leu Pro Val		
370	375	380
Pro Thr Pro Met Lys Pro Gly Ser Ala Thr Phe Pro Phe Phe Gly Val		
385	390	395
Ala Pro Ala Ile Leu Asn Glu Ser Gly Glu Glu Leu Glu Gly Glu Ala		
405	410	415
Glu Gly Tyr Leu Val Phe Lys Gln Pro Trp Pro Gly Ile Met Arg Thr		
420	425	430
Val Tyr Gly Asn His Glu Arg Phe Glu Thr Thr Tyr Ser Lys Lys Phe		
435	440	445
Pro Gly Tyr Tyr Val Thr Gly Asp Gly Cys Gln Arg Asp Gln Asp Gly		
450	455	460
Tyr Tyr Trp Ile Thr Gly Arg Ile Asp Asp Met Leu Asn Val Ser Gly		
465	470	475
His Leu Leu Ser Thr Ala Glu Val Glu Ser Ala Leu Val Glu His Glu		
485	490	495
Ala Val Ala Glu Ala Ala Val Val Gly His Pro His Pro Val Lys Gly		
500	505	510
Glu Cys Leu Tyr Cys Phe Val Thr Leu Cys Asp Gly His Thr Phe Ser		
515	520	525
Pro Lys Leu Thr Glu Glu Leu Lys Lys Gln Ile Arg Glu Lys Ile Gly		
530	535	540
Pro Ile Ala Thr Pro Asp Tyr Ile Gln Asn Ala Pro Gly Leu Pro Lys		
545	550	555
Thr Arg Ser Gly Lys Ile Met Arg Arg Val Leu Arg Lys Ile Ala Gln		
565	570	575
Asn Asp His Asp Leu Gly Asp Met Ser Thr Val Ala Asp Pro Ser Val		
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Ile Ser His Leu Phe Ser His Arg Cys Leu Thr Ile Gln		
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&lt;210&gt; 5355

&lt;211&gt; 1596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5355

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&lt;210&gt; 5356

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5356

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 Cys Arg Phe His Ser Phe Lys Lys Val Leu Tyr Glu Met Gly Pro Glu  
 35 40 45  
 Tyr Ser Ser Asn Val Glu Leu Ala Ser Phe His Ser Thr Ser Lys Gly  
 50 55 60  
 Tyr Met Gly Glu Cys Gly Tyr Arg Gly Gly Tyr Met Glu Val Val Asn  
 65 70 75 80  
 Leu His Pro Glu Ile Lys Gly Gln Leu Val Lys Leu Leu Ser Val Arg  
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 Leu Cys Pro Pro Val Ser Gly Gln Ala Ala Met Asp Ile Val Val Asn  
 100 105 110  
 Pro Pro Val Ala Gly Glu Glu Ser Phe Glu Gln Phe Ser Arg Glu Lys  
 115 120 125  
 Glu Ser Val Leu Gly Asn Leu Ala Lys Lys Ala Lys Leu Thr Glu Asp  
 130 135 140  
 Leu Phe Asn Gln Val Pro Gly Ile His Cys Asn Pro Leu Gln Gly Ala  
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 Met Tyr Ala Phe Pro Arg Ile Phe Ile Pro Ala Lys Ala Val Glu Ala  
 165 170 175  
 Ala Gln Ala His Gln Met Ala Pro Asp Met Phe Tyr Cys Met Lys Leu  
 180 185 190  
 Leu Glu Glu Thr Gly Ile Cys Val Val Pro Gly Ser Gly Phe Gly Gln  
 195 200 205  
 Arg Glu Gly Thr Tyr His Phe Arg Met Thr Ile Leu Pro Pro Val Glu  
 210 215 220  
 Lys Leu Lys Thr Val Leu Gln Lys Val Lys Asp Phe His Ile Asn Phe  
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 Leu Glu Lys Tyr Ala  
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&lt;210&gt; 5357

&lt;211&gt; 1722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5357

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&lt;210&gt; 5358

&lt;211&gt; 321

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5358

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 Pro Tyr Thr Pro Val Thr Ser Asp Glu Asp Gln Gly Tyr Val Asp Leu  
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 Gln Leu Ile Arg Ala Ile Leu Lys Val Pro Glu Asp Pro Thr Gln Cys  
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&lt;210&gt; 5359

&lt;211&gt; 5003

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5359

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&lt;210&gt; 5360



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 <212> PRT  
 <213> Homo sapiens

<400> 5360

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Gly Phe Leu Asp Arg Gln Glu Leu Thr Gln Leu Cys Leu Lys Leu His
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His Phe Ala Arg Val Asn Phe Glu Glu Phe Lys Glu Gly Phe Val Ala
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Val Leu Ser Ser Asn Ala Gly Val Arg Pro Ser Asp Glu Asp Ser Ser
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Ser Leu Glu Ser Ala Ala Ser Ser Ala Ile Pro Pro Lys Tyr Val Asn
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Gly Ser Lys Trp Tyr Gly Arg Ser Arg Pro Glu Leu Cys Asp Ala
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Ala Thr Glu Ala Arg Arg Val Pro Glu Gln Gln Thr Gln Ala Ser Leu
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Lys Ser His Leu Trp Arg Ser Ala Ser Leu Glu Ser Val Glu Ser Pro
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Lys Ser Asp Glu Glu Ala Glu Ser Thr Lys Glu Ala Gln Asn Glu Leu
      180          185          190
Phe Glu Ala Gln Gly Gln Leu Gln Thr Trp Asp Ser Glu Asp Phe Gly
      195          200          205
Ser Pro Gln Lys Ser Cys Ser Pro Ser Phe Asp Thr Pro Glu Ser Gln
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Ile Arg Gly Val Trp Glu Glu Leu Gly Val Gly Ser Ser Gly His Leu
225          230          235          240
Ser Glu Gln Glu Leu Ala Val Val Cys Gln Ser Val Gly Leu Gln Gly
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Leu Glu Lys Glu Glu Leu Glu Asp Leu Phe Asn Lys Leu Asp Gln Asp
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Gly Asp Gly Lys Val Ser Leu Glu Glu Phe Gln Leu Gly Leu Phe Ser
      275          280          285
His Glu Pro Ala Leu Leu Leu Glu Ser Ser Thr Arg Val Lys Pro Ser
      290          295          300
Lys Ala Trp Ser His Tyr Gln Val Pro Glu Glu Ser Gly Cys His Thr
305          310          315          320
Thr Thr Thr Ser Ser Leu Val Ser Leu Cys Ser Ser Leu Arg Leu Phe
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Ser Ser Ile Asp Asp Gly Ser Gly Phe Ala Phe Pro Asp Gln Val Leu
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      355          360          365
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Ala Arg Arg Arg Leu Asp Ala Gln Arg Glu Glu His Glu Lys Gln Leu		1295
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Glu Lys Asn Thr Lys Ser Asp Leu Leu Leu Lys Glu Leu Tyr Val Glu		1340
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 <212> DNA  
 <213> Homo sapiens

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<210> 5362

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5362

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<212> DNA

<213> Homo sapiens

<400> 5363

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<210> 5364  
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 <212> PRT  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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<211> 477

<212> PRT

<213> Homo sapiens

<400> 5366

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&lt;211&gt; 549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5367

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&lt;210&gt; 5368

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&lt;210&gt; 5372

&lt;211&gt; 368

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5372

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&lt;211&gt; 4221

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5373

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<210> 5374  
 <211> 886  
 <212> PRT  
 <213> Homo sapiens

<400> 5374

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		20						25					30		
Lys	Lys	Ser	Leu	Gln	Glu	Lys	Gly	Lys	Leu	Ser	Ala	Glu	Glu	Asn	Pro
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Gln	Asp	Lys	Asp	Val	Asn	Glu	Gly	Glu	Thr	Ser	Asp	Gly	Val	Arg	Lys
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		260						265					270		
Gly	Tyr	Arg	Arg	Ile	Leu	Asn	Leu	Leu	Ser	Pro	Ser	Asp	Gly	Glu	Arg
		275					280					285			
Phe	Met	Gln	Leu	Ala	Arg	Asp	Met	Ala	Lys	Ser	Tyr	Tyr	Glu	Ala	Asn
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Asp	Val	Thr	Ser	Ala	Ile	Asn	Ile	Ile	Asp	Glu	Ala	Phe	Ser	Lys	His
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Gln	Gly	Leu	Val	Ser	Met	Glu	Asp	Val	Asn	Ile	Ala	Ala	Glu	Leu	Tyr
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**4555**

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Asn Arg Tyr Leu Ser Leu Arg Gly Pro Cys Gln Glu Ser Phe Tyr Asn
      805              810              815
Leu Gly Arg Gly Leu His Gln Leu Gly Leu Ile His Leu Ala Ile His
      820              825              830
Tyr Tyr Gln Lys Ala Leu Glu Leu Pro Pro Leu Val Val Glu Gly Ile
      835              840              845
Glu Leu Asp Gln Leu Asp Leu Arg Arg Asp Ile Ala Tyr Asn Leu Ser
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420
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 <213> Homo sapiens

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Leu Gln Arg Ala Ala Ala Ser Ser Glu Ser Pro Val Ala Arg Thr Trp
35     40     45
Val Gln Leu Lys Ser Ile Ser Leu Phe Ala Phe Ser Glu Ala Ser Pro

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Cys His Arg Pro Arg Thr Ile Ser Ile Phe Asn Pro Arg Asn His Thr		80
	85	90
Gly Asp Gly Trp Gly Met Phe Met Ser Pro Phe Tyr Arg Ser Gly Asp		95
100	105	110

&lt;210&gt; 5377

&lt;211&gt; 1452

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5377

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<211> 374

<212> PRT

<213> Homo sapiens

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Thr	Pro	Pro	Arg	Arg	Ala	Pro	Asp	Gln	Ala	Ala	Glu	Ile	Gly	Ser	Arg
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Pro	Ser	Tyr	Ala	Lys	Lys	Val	Ala	Leu	Trp	Leu	Ala	Gly	Leu	Leu	Gly
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Gln	Glu	Pro	Tyr	Tyr	Gln	Pro	Pro	Tyr	Thr	Leu	Val	Leu	Glu	Leu	Thr
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Cys	Leu	Asn	Arg	Asp	Pro	Ala	Arg	Val	Val	Val	Val	Asp	Cys	Lys	Lys
		260					265					270			
Glu	Ala	Phe	Arg	Leu	Gln	Pro	Tyr	Asn	Gly	Val	Ala	Leu	Arg	Pro	Trp
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<210> 5379

<211> 3213

<212> DNA

<213> Homo sapiens

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&lt;210&gt; 5380

&lt;211&gt; 903

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5380

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Gln	Leu	Cys	His	Gly	Leu	Val	Gly	Ser	Trp	Pro	Ala	Cys	Ser	Ala	Pro
			20					25					30		
Ser	Cys	Ala	Pro	Ala	Leu	Leu	Gly	Ser	Gly	Cys	Gly	Ser	Gly	Glu	Ser
		35					40					45			
Cys	Asp	Arg	Gly	Cys	Leu	Ala	Ala	Ile	Leu	Ala	Ser	Thr	Ser	Ala	Thr
	50					55					60				
Gln	Ala	Arg	Met	Val	Leu	Arg	Cys	Cys	Ser	Glu	Phe	Ile	Glu	Ala	His
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Gly	Val	Val	Asp	Gly	Ile	Tyr	Arg	Leu	Ser	Gly	Val	Ser	Ser	Asn	Ile
			85					90						95	
Gln	Arg	Leu	Arg	His	Glu	Phe	Asp	Ser	Glu	Arg	Ile	Pro	Glu	Leu	Ser
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Gly	Pro	Ala	Phe	Leu	Gln	Asp	Ile	His	Ser	Val	Ser	Ser	Leu	Cys	Lys
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                                          275                                      280                                      285  
 Arg Thr Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys  
                                          290                                      295                                      300  
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 Gln Arg Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly  
                                          325                                      330                                      335  
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                                          340                                      345                                      350  
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 Leu Asp Phe Ser Pro Pro Arg Cys Leu Glu Gly Leu Arg Gly Leu Asp  
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 Phe Asp Pro Leu Thr Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro  
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 Ala Pro Pro Ala Ser Pro Ala Pro Pro Ala Pro Ala Ser Ala Phe Pro  
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 Ala Trp Val Pro Gly Pro Pro Pro Tyr Leu Pro Arg Gln Gln Ser Asp  
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 Gly Ser Leu Leu Arg Ser Gln Arg Pro Met Gly Thr Ser Arg Arg Gly  
                                          595                                      600                                      605  
 Leu Arg Gly Pro Ala Gln Val Ser Ala Gln Leu Arg Ala Gly Gly Gly  
                                          610                                      615                                      620  
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<210> 5381
<211> 1576
<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5382

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5382

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			20					25					30		
Ile	Ser	Gln	Ala	Trp	Pro	Gly	Met	Ala	Arg	Thr	Ile	Tyr	Gly	Asp	His
		35				40					45				
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Ala	Glu	Ile	Glu	Asp	Ala	Ile	Ala	Asp	His	Pro	Ala	Val	Pro	Glu	Ser
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	130					135					140				
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				165					170					175	
Val	Met	Arg	Arg	Leu	Leu	Arg	Lys	Ile	Ile	Thr	Ser	Glu	Ala	Gln	Glu
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&lt;210&gt; 5383

&lt;211&gt; 2027

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5383

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&lt;210&gt; 5384

&lt;211&gt; 508

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5384

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Phe	Pro	Lys	Val	Glu	Tyr	Ile	Ala	Arg	Ala	Gly	Ala	Trp	Ala	Met	Phe
			20				25					30			
Leu	Asp	Arg	Pro	Gln	Gln	Trp	Leu	Gln	Leu	Val	Leu	Leu	Pro	Pro	Ala
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4567

495

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<210> 5388

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5388

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			20					25					30		
Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Met	Thr	Leu	Ile	Ile	Leu	Ile	Val
		35					40					45			
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Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe	Cys	Leu	Ser	Ala	Ser
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Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu	Ser	His	Gly	Arg	Ser
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Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser	Cys	Ile	Ala	Cys	Val
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<210> 5389

<211> 1711

<212> DNA

<213> Homo sapiens

<400> 5389

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1711

&lt;210&gt; 5390

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5390

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Val	Thr	Phe	Asp	Gly	Leu	His	Ile	Ser	Leu	Cys	Asp	Leu	Lys	Lys	Gln



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Ile Met Gly Arg Glu Lys Leu Lys Ala Ala Asp Cys Asp Leu Gln Ile					
	35		40		45
Thr Asn Ala Gln Thr Lys Glu Glu Tyr Thr Asp Asp Asn Ala Leu Ile					
	50		55		60
Pro Lys Asn Ser Ser Val Ile Val Arg Arg Ile Pro Ile Gly Gly Val					
	65		70		75
Lys Ser Thr Ser Lys Thr Tyr Val Ile Ser Arg Thr Glu Pro Ala Met					
		85		90	
Ala Thr Thr Lys Ala Val Cys Lys Asn Thr Ile Ser His Phe Phe Tyr					
	100		105		110
Thr Leu Leu Leu Pro Leu					
	115				

&lt;210&gt; 5391

&lt;211&gt; 797

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5391

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&lt;210&gt; 5392

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5392

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           20           25           30
Thr Ile Lys Gly His Cys Asn Leu Ser Leu Asn Leu Leu Gly Ser Ser
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&lt;210&gt; 5393

&lt;211&gt; 4837

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5393

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&lt;210&gt; 5394

&lt;211&gt; 354

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5394

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			325						330					335					
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&lt;210&gt; 5395

&lt;211&gt; 3711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5395

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&lt;210&gt; 5396

&lt;211&gt; 760

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5396

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Ser	Glu	Asn	Ser	Tyr	Ser	Leu	Asp	Asp	Leu	Glu	Ile	Gly	Pro	Gly	Gln
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&lt;210&gt; 5397

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5397

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 <213> Homo sapiens

<400> 5398  
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 Thr Ser Ile Pro Ile Ser Pro Pro Leu Thr Pro Gln Asp Ala Asn Glu  
 35 40 45  
 Ala Gln Gly Trp Ala Glu Ala Gly Arg Ala Val His Arg Glu Asp Pro  
 50 55 60  
 Arg Val Ser Leu Gly Leu Pro Arg Trp Leu Cys Pro Pro Phe Cys Leu  
 65 70 75 80  
 Gly Gly Ser Leu Arg Leu Gly Arg Ala Gln Arg Glu Gly Asp Pro Glu  
 85 90 95  
 Gly Leu Ala Asp Ser Gly Pro Pro Cys Glu Leu Arg Phe Glu Glu Glu  
 100 105 110  
 Ser Arg Pro Pro Arg Val Val Gly Glu Ser Thr Gly Arg Lys Ala Gly  
 115 120 125  
 Ile Ser Thr Glu Gly Leu Ser Ala Ser Phe Asp Leu Phe Gln Ser Phe  
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 Arg Val Met Asn Gln Ile Ala Phe Met Arg  
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<210> 5399  
 <211> 835  
 <212> DNA  
 <213> Homo sapiens

<400> 5399  
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 120  
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 180  
 ggccctccag gccacagcg gtatccaatt ggcattccagg gtcggactcc cggggccatg  
 240  
 gccggaatgc agtaccctca gcagcagatg ccacctcagt atggacagca aggtgtgagt  
 300  
 ggttactgcc agcagggcca acagccatat tacagccagc agccgcagcc cccgcacctc  
 360  
 ccaccccgagg cgcagtatct gccgtcccag tcccagcaga ggtaccagcc gcagcaggac  
 420

atgtctcagg aaggctatgg aactagatct caacctcctc tggcccccg g aaaacctaac  
 480  
 catgaagact tgaacttaat acagcaagaa agaccatcaa gtttaccagt aagacattat  
 540  
 tgtgctgatt tggaaatgta atgagttaaa gactttttaga aagagctggt gtttttgttt  
 600  
 gttctacttt atattatgac atgattgaga agtttctaga cttcagggtt attttgtggt  
 660  
 caatttttca aggtttacct tttaggagct ctgtagtctt ggataagtct atttcatgtg  
 720  
 tatatatctc tgttcagag tgtagacatc agttggaagg ttttatgcgg ctggctgatt  
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 835

<210> 5400  
 <211> 186  
 <212> PRT  
 <213> Homo sapiens

<400> 5400  
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 20 25 30  
 Met Lys Arg Pro Gln Leu Tyr Gly Met Gly Ser Asn Pro His Ser Gln  
 35 40 45  
 Pro Gln Gln Ser Ser Pro Tyr Pro Gly Gly Ser Tyr Gly Pro Pro Gly  
 50 55 60  
 Pro Gln Arg Tyr Pro Ile Gly Ile Gln Gly Arg Thr Pro Gly Ala Met  
 65 70 75 80  
 Ala Gly Met Gln Tyr Pro Gln Gln Gln Met Pro Pro Gln Tyr Gly Gln  
 85 90 95  
 Gln Gly Val Ser Gly Tyr Cys Gln Gln Gly Gln Gln Pro Tyr Tyr Ser  
 100 105 110  
 Gln Gln Pro Gln Pro Pro His Leu Pro Pro Gln Ala Gln Tyr Leu Pro  
 115 120 125  
 Ser Gln Ser Gln Gln Arg Tyr Gln Pro Gln Gln Asp Met Ser Gln Glu  
 130 135 140  
 Gly Tyr Gly Thr Arg Ser Gln Pro Pro Leu Ala Pro Gly Lys Pro Asn  
 145 150 155 160  
 His Glu Asp Leu Asn Leu Ile Gln Gln Glu Arg Pro Ser Ser Leu Pro  
 165 170 175  
 Val Arg His Tyr Cys Ala Asp Leu Glu Met  
 180 185

<210> 5401  
 <211> 2674  
 <212> DNA  
 <213> Homo sapiens

<400> 5401  
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180  
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240  
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300  
tggcctagca gtgacataaa caccattcct ggagaactga ctgatgcttc tgcttgtaag  
360  
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420  
aagaaggaca aaaagttatc agacatgcat caaatagtaa atatagatct tatgctggaa  
480  
atgtcaacct ccctggcagc tgtaacgccc atcattgaaa gggaaagcgg aggacaccat  
540  
tatgttaata tgactttacc tgcgatgca gttatatctg ttgctccaga agaaacatgg  
600  
ggaaaagtgc gtaagctcct gggtgatgca attcataatc aactaactga catggaaaaa  
660  
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720  
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780  
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tccattccaa cacacagaga aattcagcag gctctagtcg atgccgggga caaaccagca  
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1680

gacgttcctt taataactta aaagacaaag catacacaac cagcatatta taggcatgta  
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 1980  
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 2040  
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 2100  
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 2160  
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 2280  
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 2340  
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 2674

&lt;210&gt; 5402

&lt;211&gt; 507

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5402

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			20					25					30		
Pro	Arg	His	Val	Ala	Asp	Met	Val	Ile	Ser	Glu	Ser	Met	Asp	Ile	Leu
		35				40					45				
Phe	Arg	Ile	Arg	Gly	Gly	Leu	Asp	Leu	Ala	Phe	Gln	Leu	Ala	Thr	Pro
	50				55					60					
Asn	Glu	Ile	Phe	Leu	Lys	Lys	Ala	Leu	Lys	His	Val	Leu	Ser	Asp	Leu
65				70					75					80	
Ser	Thr	Lys	Leu	Ser	Ser	Asn	Ala	Leu	Val	Phe	Arg	Ile	Cys	His	Ser
			85					90					95		
Ser	Val	Tyr	Ile	Trp	Pro	Ser	Ser	Asp	Ile	Asn	Thr	Ile	Pro	Gly	Glu

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 Leu Thr Asp Ala Ser Ala Cys Lys Asn Ile Leu Arg Phe Ile Gln Phe  
 115 120 125  
 Glu Pro Glu Glu Asp Ile Lys Arg Lys Phe Met Arg Lys Lys Asp Lys  
 130 135 140  
 Lys Leu Ser Asp Met His Gln Ile Val Asn Ile Asp Leu Met Leu Glu  
 145 150 155 160  
 Met Ser Thr Ser Leu Ala Ala Val Thr Pro Ile Ile Glu Arg Glu Ser  
 165 170 175  
 Gly Gly His His Tyr Val Asn Met Thr Leu Pro Val Asp Ala Val Ile  
 180 185 190  
 Ser Val Ala Pro Glu Glu Thr Trp Gly Lys Val Arg Lys Leu Leu Val  
 195 200 205  
 Asp Ala Ile His Asn Gln Leu Thr Asp Met Glu Lys Cys Ile Leu Lys  
 210 215 220  
 Tyr Met Lys Arg Thr Ser Ile Val Val Pro Glu Pro Leu His Phe Leu  
 225 230 235 240  
 Leu Pro Gly Lys Lys Asn Leu Val Thr Ile Ser Tyr Pro Ser Gly Ile  
 245 250 255  
 Pro Asp Gly Gln Leu Gln Ala Tyr Arg Lys Glu Leu His Asp Leu Phe  
 260 265 270  
 Asn Leu Pro His Asp Arg Pro Tyr Phe Lys Arg Ser Asn Ala Tyr His  
 275 280 285  
 Phe Pro Asp Glu Pro Tyr Lys Asp Gly Tyr Ile Arg Asn Pro His Thr  
 290 295 300  
 Tyr Leu Asn Pro Pro Asn Met Glu Thr Gly Met Ile Tyr Val Val Gln  
 305 310 315 320  
 Gly Ile Tyr Gly Tyr His His Tyr Met Gln Asp Arg Ile Asp Asp Asn  
 325 330 335  
 Gly Trp Gly Cys Ala Tyr Arg Ser Leu Gln Thr Ile Cys Ser Trp Phe  
 340 345 350  
 Lys His Gln Gly Tyr Thr Glu Arg Ser Ile Pro Thr His Arg Glu Ile  
 355 360 365  
 Gln Gln Ala Leu Val Asp Ala Gly Asp Lys Pro Ala Thr Phe Val Gly  
 370 375 380  
 Ser Arg Gln Trp Ile Gly Ser Ile Glu Val Gln Leu Val Leu Asn Gln  
 385 390 395 400  
 Leu Ile Gly Ile Thr Ser Lys Ile Leu Phe Val Ser Gln Gly Ser Glu  
 405 410 415  
 Ile Ala Ser Gln Gly Arg Glu Leu Ala Asn His Phe Gln Ser Glu Gly  
 420 425 430  
 Thr Pro Val Met Ile Gly Gly Gly Val Leu Ala His Thr Ile Leu Gly  
 435 440 445  
 Val Ala Trp Asn Glu Ile Thr Gly Gln Ile Lys Phe Leu Ile Leu Asp  
 450 455 460  
 Pro His Tyr Thr Gly Ala Glu Asp Leu Gln Val Ile Leu Glu Lys Gly  
 465 470 475 480  
 Trp Cys Gly Trp Lys Gly Pro Asp Phe Trp Asn Lys Asp Ala Tyr Tyr  
 485 490 495  
 Asn Leu Cys Leu Pro Gln Arg Pro Asn Met Ile  
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&lt;210&gt; 5403

&lt;211&gt; 451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5403

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180  
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300  
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ccagccggaa gggggccagg cccgcaagct t  
451

&lt;210&gt; 5404

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5404

Ala	Pro	Ser	Pro	Ser	Thr	Ala	Pro	Ala	Pro	Arg	Pro	Leu	Ala	Pro	Gly
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Cys	Ala	Arg	Pro	His	Ala	Leu	Val	Arg	Ala	Ala	Gly	Ser	Gly	Ser	Gly
			20					25				30			
Ser	Pro	Ala	Leu	Thr	Met	Ala	Pro	Ser	Ser	Leu	Gly	Ala	Leu	Gly	Pro
			35				40					45			
Trp	Val	Gly	Ala	Leu	Glu	Leu	Pro	Arg	Leu	Gln	Ala	Pro	Leu	Ser	Gln
	50				55					60					
Pro	Gly	Thr	His	Ala	Gly	Ala	Xaa	Asp	Pro	Arg	Pro	Ser	Leu	Arg	Lys
65				70				75						80	
Ala	Ser	Leu	Arg	Ala	Ala	Ser	Pro	Ala	Ala	Ser	Ser	Ser	Pro	Trp	Ala
			85				90						95		
Arg	Val	Pro	Cys	Ser	Arg	Ala	Arg	Arg	Pro	Lys	Ser	Ala	Glu	Leu	Leu
		100					105					110			
Arg	Ile	Pro	Gly	Thr	Ser	Thr	Arg	Pro	Lys	Lys	Glu	Arg	Gly	Cys	Pro
	115					120					125				
Ser	Pro	Gly	Leu	Pro	Ala	Ala	Gly	Pro	Gly	Pro	Ser	Pro	Ala	Gly	Arg
	130				135						140				
Gly	Pro	Gly	Pro	Gln	Ala										
145					150										

&lt;210&gt; 5405

&lt;211&gt; 1609

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5405



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<210> 5406  
 <211> 291  
 <212> PRT  
 <213> Homo sapiens

<400> 5406  
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 Ala Gln Cys Leu Arg Asn Gly Gln Val Ile Glu Pro Asp Lys Asn Arg  
 35 40 45  
 Lys Tyr Cys Ser Ala Lys Ala Arg His Ser Trp Thr Lys Asp Arg Arg  
 50 55 60  
 Ala Met Arg Val Met Ser Ile Glu Arg Lys Lys Trp Met Asn Ile Arg  
 65 70 75 80  
 Pro Leu Pro Thr Lys Lys Gln Met Pro Leu Gln Phe Asp Leu Cys Asn  
 85 90 95  
 His Ile Ala Ser Gly Lys Lys Cys Gln Tyr Val Gly Asn Cys Ser Phe  
 100 105 110  
 Ala His Ser Pro Glu Glu Arg Glu Val Trp Thr Tyr Met Lys Glu Asn  
 115 120 125  
 Gly Ile Gln Asp Met Glu Gln Phe Tyr Glu Leu Trp Leu Lys Ser Gln  
 130 135 140  
 Lys Asn Glu Lys Ser Glu Asp Ile Ala Ser Gln Ser Asn Lys Glu Asn  
 145 150 155 160  
 Gly Lys Gln Ile His Met Pro Thr Asp Tyr Ala Glu Val Thr Val Asp  
 165 170 175  
 Phe His Cys Trp Met Cys Gly Lys Asn Cys Asn Ser Glu Lys Gln Trp  
 180 185 190  
 Gln Gly His Ile Ser Ser Glu Lys His Lys Glu Lys Val Phe His Thr  
 195 200 205  
 Glu Asp Asp Gln Tyr Cys Trp Gln His Arg Phe Pro Thr Gly Tyr Phe  
 210 215 220  
 Ser Ile Cys Asp Arg Tyr Met Asn Gly Thr Cys Pro Glu Gly Asn Ser  
 225 230 235 240  
 Cys Lys Phe Ala His Gly Asn Ala Glu Leu His Glu Trp Glu Glu Arg  
 245 250 255  
 Arg Asp Ala Leu Lys Met Lys Leu Asn Lys Ala Arg Lys Asp His Leu  
 260 265 270  
 Ile Gly Pro Asn Asp Asn Asp Phe Gly Lys Tyr Ser Phe Leu Phe Lys  
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<210> 5407  
 <211> 2010  
 <212> DNA  
 <213> Homo sapiens

<400> 5407  
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aatcgtgtgt gtttgaaaag aagaatgcaa cttgtatatt ttgtattacc tcttttttc  
1140  
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1200  
cctctgtcaa aatctgaggt atttgaaaat aattatcctc ttaaccttct cttcccagt  
1260  
aactttatgg aacatttaat ttagtacaat taagtatatt ataaagatac tatgactgcc  
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1680

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 2010

<210> 5408  
 <211> 335  
 <212> PRT  
 <213> Homo sapiens

<400> 5408

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Phe	Gln	Ile	Leu	Ala	Asn	Ser	Trp	Arg	Tyr	Ser	Ser	Ala	Phe	Thr	Asn
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Arg	Ile	Phe	Phe	Ala	Met	Val	Asp	Phe	Asp	Glu	Gly	Ser	Asp	Val	Phe
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Cys	Phe	Val	Leu	Ala	Met	Thr	Ser	Gly	Gln	Met	Trp	Asn	His	Ile	Arg
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Ile	His	Gly	Ser	Ser	Gln	Ala	Gln	Phe	Val	Ala	Glu	Thr	His	Ile	Val
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Leu	Leu	Phe	Asn	Gly	Gly	Val	Thr	Leu	Gly	Met	Val	Leu	Leu	Cys	Glu

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	290	295	300			
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5410

&lt;211&gt; 198

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5410

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			100					105					110		
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&lt;210&gt; 5411

&lt;211&gt; 2802

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5411

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 <212> PRT  
 <213> Homo sapiens

<400> 5412

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Asp	Glu	Thr	Leu	Pro	Thr	Ile	Leu	Gln	Val	Phe	Ser	Asn	Ile	Leu	Gln
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His	Cys	Gly	Leu	Gln	Gly	Asp	Gly	Ala	Asn	Thr	Thr	Pro	Gln	Lys	Leu
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Glu	Glu	Arg	Gly	Arg	Leu	Thr	Pro	Ser	Asp	Met	Pro	Leu	Leu	Glu	Leu
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Lys	Asp	Ile	Val	Leu	Tyr	Leu	Cys	Asp	Thr	Cys	Thr	Thr	Leu	Trp	Ala
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Phe	Leu	Asp	Ile	Phe	Pro	Leu	Ala	Cys	Gln	Thr	Phe	Gln	Lys	His	Asp
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&lt;211&gt; 1677

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5413

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&lt;210&gt; 5414

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5414

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&lt;213&gt; Homo sapiens

&lt;400&gt; 5415

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 <212> PRT  
 <213> Homo sapiens

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&lt;210&gt; 5418

&lt;211&gt; 528

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5418

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			20					25				30			
Arg	Leu	Leu	Lys	Glu	Pro	Glu	Lys	Glu	Arg	Asp	Ser	Asp	Ser	Asp	Phe
			35				40					45			
Ser	Pro	Leu	Gln	Gln	Thr	Glu	Gly	Cys	Gln	Arg	Arg	Asp	Lys	His	Phe
			50				55					60			
Arg	His	Ala	Glu	Asn	Pro	His	His	Pro	Leu	Lys	Thr	Ser	Ser	Arg	Ala

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Lys Gly Pro Val Ala Val Thr Gly Ala Ser Thr Pro Glu Gly Thr Ala
          100          105          110
Pro Pro Pro Pro Ala Ala Pro Ala Pro Pro Lys Gly Glu Lys Glu Gly
          115          120          125
Gln Arg Pro Thr Gln Pro Val Tyr Gln Ile Gln Asn Arg Gly Met Gly
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Thr Ala Ala Pro Ala Ala Met Asp Pro Val Val Gly Gln Ala Lys Leu
145          150          155          160
Leu Pro Pro Glu Arg Met Lys His Ser Ile Lys Leu Val Asp Asp Gln
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Met Asn Trp Cys Asp Ser Ala Ile Glu Tyr Leu Leu Asp Gln Thr Asp
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Val Leu Val Val Gly Val Leu Gly Leu Gln Gly Thr Gly Lys Ser Met
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Tyr Val Phe Arg Ala Gln Ser Ala Glu Met Lys Glu Arg Gly Gly Asn
225          230          235          240
Gln Thr Ser Gly Ile Asp Phe Phe Ile Thr Gln Glu Arg Ile Val Phe
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Leu Asp Thr Gln Pro Ile Leu Ser Pro Ser Ile Leu Asp His Leu Ile
          260          265          270
Asn Asn Asp Arg Lys Leu Pro Pro Glu Tyr Asn Leu Pro His Thr Tyr
          275          280          285
Val Glu Met Gln Ser Leu Gln Ile Ala Ala Phe Leu Phe Thr Val Cys
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His Val Val Ile Val Val Gln Asp Trp Phe Thr Asp Leu Ser Leu Tyr
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Arg Leu Trp Asp Leu Gly Cys Lys Cys Lys Ser Asn Ser His Ser Pro
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Gln Thr Pro Arg Phe Leu Gln Thr Ala Glu Met Val Lys Pro Ser Thr
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Pro Ser Pro Ser His Glu Ser Ser Ser Ser Gly Ser Asp Glu Gly
          355          360          365
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Glu Asp Phe Cys Pro Arg Lys Leu Arg Gln Met His Leu Met Ile Asp
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Glu Val Asn Leu Phe Leu Val Pro Phe Met Asp Ser Glu Ala Glu Ser
          435          440          445
Glu Asn Pro Pro Arg Ala Gly Pro Gly Ser Ser Pro Leu Phe Ser Leu
          450          455          460
Leu Pro Gly Tyr Arg Gly His Pro Ser Phe Gln Ser Leu Val Ser Lys
465          470          475          480
Leu Arg Ser Gln Val Met Ser Met Ala Arg Pro Gln Leu Ser His Thr
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 <212> DNA  
 <213> Homo sapiens

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 <211> 174  
 <212> PRT  
 <213> Homo sapiens

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Thr	Arg	Arg	Tyr	Tyr	Arg	Ser	Pro	Ser	Arg	Tyr	Arg	Ser	Arg	Ser	Arg	
	50					55					60					
Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Ser	Tyr	Cys	Gly	Arg	Ala	Tyr	Ala	
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Ile	Ala	Arg	Gly	Gln	Arg	Tyr	Tyr	Gly	Phe	Gly	Arg	Thr	Val	Tyr	Pro	
				85					90					95		
Glu	Glu	His	Ser	Arg	Trp	Arg	Asp	Arg	Ser	Arg	Thr	Arg	Ser	Arg	Ser	
			100					105					110			
Arg	Thr	Pro	Phe	Arg	Leu	Ser	Glu	Lys	Asp	Arg	Met	Glu	Leu	Leu	Glu	
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Ile	Ala	Lys	Thr	Asn	Ala	Ala	Lys	Ala	Leu	Gly	Thr	Thr	Asn	Ile	Asp	
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<211> 276

<212> PRT

<213> Homo sapiens

<400> 5422

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			20					25					30		
Thr	Gln	Pro	Leu	Gly	Leu	Leu	Arg	Leu	Leu	Gln	Leu	Val	Ser	Thr	Cys
			35				40					45			
Val	Ala	Phe	Ser	Leu	Val	Ala	Ser	Val	Gly	Ala	Trp	Thr	Gly	Ser	Met
			50				55				60				
Gly	Asn	Trp	Ser	Met	Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Val	Thr	Leu
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Ile	Ile	Leu	Ile	Val	Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro	Leu
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Ser	Trp	Arg	Asn	Phe	Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe
			100					105					110		
Cys	Leu	Ser	Ala	Ser	Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu
			115				120					125			
Ser	His	Gly	Arg	Ser	Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser
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Lys	Val	Leu	Glu	Thr	Phe	Val	Ala	Cys	Ile	Ile	Phe	Ala	Phe	Ile	Ser
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265

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&lt;210&gt; 5424

&lt;211&gt; 570

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5424

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Lys	Tyr	Gln	Leu	Leu	Val	Tyr	His	Ala	Asp	Ser	Leu	Phe	His	Asp	Lys
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Glu	Tyr	Arg	Asn	Ala	Val	Ser	Lys	Tyr	Thr	Met	Ala	Leu	Gln	Gln	Lys
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Tyr	Lys	Met	Ala	Glu	Cys	Tyr	Thr	Met	Leu	Lys	Gln	Asp	Lys	Asp	Ala
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&lt;210&gt; 5432

&lt;211&gt; 863

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5432

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Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro	Asn	Leu



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Ala	Glu	Arg	Ala	Gln	Gln	Val	Ala	Glu	Gln	Gln	Ser	Gln	Gln	Glu	Cys
				485					490					495	
Gly	Gly	Thr	Pro	Pro	Ala	Ser	Gln	Ser	Pro	Phe	His	Arg	Ser	Leu	Ser
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Leu	Glu	Val	Gly	Gly	Glu	Pro	Leu	Gly	Thr	Ser	Gly	Ser	Gly	Pro	Pro
		515					520					525			
Pro	Asn	Ser	Leu	Ala	His	Pro	Gly	Ala	Trp	Val	Pro	Gly	Pro	Pro	Pro
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Tyr	Leu	Pro	Arg	Gln	Gln	Ser	Asp	Gly	Ser	Leu	Leu	Arg	Ser	Gln	Arg
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Pro	Met	Gly	Thr	Ser	Arg	Arg	Gly	Leu	Arg	Gly	Pro	Ala	Gln	Val	Ser
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			580				585						590		
Ala	Gln	Ser	Pro	Cys	Ser	Val	Pro	Ser	Gln	Val	Pro	Thr	Pro	Gly	Phe
		595					600					605			
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Pro	Ala	Pro	Val	Trp	Arg	Ser	Ser	Leu	Gly	Pro	Pro	Ala	Pro	Leu	Asp
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Arg	Gly	Glu	Asn	Leu	Tyr	Tyr	Glu	Ile	Gly	Ala	Ser	Glu	Gly	Ser	Pro
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Phe	Pro	Pro	Asp	His	Leu	Gly	Tyr	Ser	Ala	Pro	Gln	His	Pro	Ala	Arg
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Arg	Pro	Thr	Pro	Pro	Glu	Pro	Leu	Tyr	Val	Asn	Leu	Ala	Leu	Gly	Pro
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		755					760					765			
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			820					825					830		
Gly	Gly	Gln	Arg	Gly	Glu	Gly	Ala	Gly	Pro	Pro	Pro	Pro	Tyr	Pro	Thr
		835					840					845			
Pro	Ser	Trp	Ser	Leu	His	Ser	Glu	Gly	Gln	Thr	Arg	Ser	Tyr	Cys	
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&lt;210&gt; 5433

&lt;211&gt; 385

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5433

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&lt;210&gt; 5434

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5434

Asp	Leu	Thr	Asn	Leu	His	Tyr	Ser	Thr	Pro	Leu	Pro	Ala	Ser	Leu	Asp
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			20					25					30		
Asn	Ile	Pro	Ala	Ala	Met	Thr	His	Leu	Gly	Ile	Arg	Ser	Ser	Ser	Gly
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Thr	Val	Leu	Ser	Ser	Ser	Leu	Asn	Asn	His	Pro	Gln	Thr	Ser	Val	Pro
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Asn	Ala	Ser	Ala	Leu	His	Pro	Ser	Leu	Arg	Leu	Phe	Ser	Leu	Ser	Asn
				85					90					95	
Pro	Ser	Leu	Ser	Thr	Thr	Asn	Leu	Ser	Gly	Pro	Ser	Arg	Arg	Arg	Gln
			100					105					110		
Pro	Pro	Val	Ser	Pro	Leu	Thr	Leu	Ser	Pro	Gly	Pro	Glu	Ala	His	Gln
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&lt;210&gt; 5435

&lt;211&gt; 617

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5435

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&lt;210&gt; 5438

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5438

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Pro	Trp	Cys	Lys	Lys	Ser	Leu	Val	Val	Ser	Ser	Arg	Lys	Gly	His	Leu
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&lt;211&gt; 4234

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5439

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<213> Homo sapiens

<400> 5440

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Gln	Arg	Met	Leu	Asn	Arg	Arg	Pro	Glu	Ile	Val	Val	Ala	Thr	Pro	Gly	35	40	45	
Arg	Leu	Trp	Glu	Leu	Ile	Lys	Glu	Lys	His	Tyr	His	Leu	Arg	Asn	Leu	50	55	60	
Arg	Gln	Leu	Arg	Cys	Leu	Val	Val	Asp	Glu	Ala	Asp	Arg	Met	Val	Glu	65	70	75	80
Lys	Gly	His	Phe	Ala	Glu	Leu	Ser	Gln	Leu	Leu	Glu	Met	Leu	Asn	Asp	85	90	95	
Ser	Gln	Tyr	Asn	Pro	Lys	Arg	Gln	Thr	Leu	Val	Phe	Ser	Ala	Thr	Leu	100	105	110	
Thr	Leu	Val	His	Gln	Ala	Pro	Ala	Arg	Ile	Leu	His	Lys	Lys	His	Thr	115	120	125	
Lys	Lys	Met	Asp	Lys	Thr	Ala	Lys	Leu	Asp	Leu	Leu	Met	Gln	Lys	Ile	130	135	140	
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Thr	Val	Glu	Thr	Leu	Thr	Glu	Thr	Lys	Ile	His	Cys	Glu	Thr	Asp	Glu	165	170	175	
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5441

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&lt;211&gt; 2021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5443

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 1920  
 ggtgtgaggg gaaaggggtg ggtgttcttt gtgtaaaata gaaacatggt tttgtacaga  
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 2021

&lt;210&gt; 5444

&lt;211&gt; 438

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5444

Leu	Glu	Glu	Val	Pro	Leu	Glu	Val	Leu	Arg	Gln	Arg	Glu	Ser	Lys	Trp
1				5				10						15	
Leu	Asp	Met	Leu	Asn	Asn	Trp	Asp	Lys	Trp	Met	Ala	Lys	Lys	His	Lys
			20					25						30	
Lys	Ile	Arg	Leu	Arg	Cys	Gln	Lys	Gly	Ile	Pro	Pro	Ser	Leu	Arg	Gly
			35					40						45	
Arg	Ala	Trp	Gln	Tyr	Leu	Ser	Gly	Gly	Lys	Val	Lys	Leu	Gln	Gln	Asn
			50					55						60	
Pro	Gly	Lys	Phe	Asp	Glu	Leu	Asp	Met	Ser	Pro	Gly	Asp	Pro	Lys	Trp
			65			70				75				80	
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<210> 5445
<211> 1187
<212> DNA
<213> Homo sapiens
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4627

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 1187

&lt;210&gt; 5446

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5446

Met	Ala	Val	Ile	Lys	Glu	Thr	Val	Thr	Arg	Val	Gly	Arg	Trp	Arg	Cys
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Glu	Ser	Lys	His	Thr	Thr	Cys	Ala	Lys	Val	Lys	Trp	Pro	Gln	Pro	Pro
			20					25					30		
Arg	Lys	Thr	Gly	Trp	Arg	Phe	Leu	Arg	Arg	Ser	Thr	His	Ser	Arg	His
		35				40					45				
Gly	Thr	Gln	Trp	Phe	His	Pro	Gln	Val	Cys	Ser	Asn	Arg	His	His	Ser
	50				55					60					
Pro	Arg	Pro	His	Ala	Asp	Ser	Asp	Thr	Arg	Ala	His	Ser	Pro	Arg	Ser

65		70		75		80									
His	Ala	Asp	Ser	Asp	Met	Arg	Ala	His	Ser	Leu	Ser	His	Asp	Ser	Gln
				85					90					95	
Thr	Val	Glu	Thr	Arg	Gln	Val	Gly	Leu	Gly	Cys					
			100					105							

&lt;210&gt; 5447

&lt;211&gt; 1444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5447

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1260

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 <211> 189  
 <212> PRT  
 <213> Homo sapiens

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 Ala Leu His Ser Ala Leu Gly Gly Thr Lys Lys Lys Lys Lys Thr Ile  
 35 40 45  
 Val Thr Asp Val Phe Gln Gly Ser Met Arg Ile Phe Thr Lys Lys Leu  
 50 55 60  
 Pro His Pro Asp Leu Pro Ala Glu Glu Lys Glu Gln Leu Leu His Asn  
 65 70 75 80  
 Asp Glu Tyr Gln Glu Thr Met Val Glu Ser Thr Phe Met Tyr Leu Thr  
 85 90 95  
 Leu Asp Leu Pro Thr Ala Pro Leu Tyr Lys Asp Glu Lys Glu Gln Leu  
 100 105 110  
 Ile Ile Pro Gln Val Pro Leu Phe Asn Ile Leu Ala Lys Phe Asn Gly  
 115 120 125  
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<210> 5449  
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 <212> DNA  
 <213> Homo sapiens

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 240

gctgccttcc ttttcacggt ctgccatgtg gggattnntg tccaggactg gttcacagac  
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 360  
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 1359

&lt;210&gt; 5450

&lt;211&gt; 293

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5450

Ser	Pro	Glu	Glu	Asp	Gln	Arg	Thr	Tyr	Val	Phe	Arg	Ala	Gln	Ser	Ala
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			20				25						30		
Ile	Thr	Gln	Glu	Arg	Ile	Val	Phe	Leu	Asp	Thr	Gln	Pro	Ile	Leu	Ser
		35					40					45			
Pro	Ser	Ile	Leu	Asp	His	Leu	Ile	Asn	Asn	Asp	Arg	Lys	Leu	Pro	Pro
	50					55					60				
Glu	Tyr	Asn	Leu	Pro	His	Thr	Tyr	Val	Glu	Met	Gln	Ser	Leu	Gln	Ile

65		70		75		80									
Ala	Ala	Phe	Leu	Phe	Thr	Val	Cys	His	Val	Gly	Ile	Xaa	Val	Gln	Asp
		85							90					95	
Trp	Phe	Thr	Asp	Leu	Ser	Leu	Tyr	Arg	Phe	Leu	Gln	Thr	Ala	Glu	Met
		100						105					110		
Val	Lys	Pro	Ser	Thr	Pro	Ser	Pro	Ser	His	Glu	Ser	Ser	Ser	Ser	Ser
		115					120					125			
Gly	Ser	Asp	Glu	Gly	Thr	Glu	Tyr	Tyr	Pro	His	Leu	Val	Phe	Phe	Gln
		130				135					140				
Asn	Lys	Ala	Arg	Arg	Glu	Asp	Phe	Cys	Pro	Arg	Lys	Leu	Arg	Gln	Met
145					150					155				160	
His	Leu	Met	Ile	Asp	Gln	Leu	Met	Ala	His	Ser	His	Leu	Arg	Tyr	Lys
			165						170					175	
Gly	Thr	Leu	Ser	Met	Leu	Gln	Cys	Asn	Val	Phe	Pro	Gly	Leu	Pro	Pro
		180						185					190		
Asp	Phe	Leu	Asp	Ser	Glu	Val	Asn	Leu	Phe	Leu	Val	Pro	Phe	Met	Asp
		195					200					205			
Ser	Glu	Ala	Glu	Ser	Glu	Asn	Pro	Pro	Arg	Ala	Gly	Pro	Gly	Ser	Ser
		210				215					220				
Pro	Leu	Phe	Ser	Leu	Leu	Pro	Gly	Tyr	Arg	Gly	His	Pro	Ser	Phe	Gln
225					230					235				240	
Ser	Leu	Val	Ser	Lys	Leu	Arg	Ser	Gln	Val	Met	Ser	Met	Ala	Arg	Pro
			245						250				255		
Gln	Leu	Ser	His	Thr	Ile	Leu	Thr	Glu	Lys	Asn	Trp	Phe	His	Tyr	Ala
			260					265				270			
Ala	Arg	Ile	Trp	Asp	Gly	Val	Arg	Lys	Ser	Ser	Ala	Leu	Ala	Glu	Tyr
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Ser	Arg	Leu	Leu	Ala											
		290													

<210> 5451  
 <211> 1184  
 <212> DNA  
 <213> Homo sapiens

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 1184

&lt;210&gt; 5452

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5452

Met Ser Ser Val Tyr Pro Arg Pro Leu Glu Gly Glu Ser Arg Ala Leu  
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 Arg Lys Gly Ser His Leu Leu Ser Leu Ala Glu Pro Leu Pro Pro Tyr  
 20 25 30  
 Ser Ser Pro Glu Leu Ser Val Ala Phe His His Ser Gly Pro Ser Cys  
 35 40 45  
 Leu Ser Pro Ala Leu Ser Gln Thr Thr Gln Lys Ser Gly His Leu Trp  
 50 55 60  
 Ala Pro Gly Met Val Thr Glu Glu Lys His Ala Val Pro Val Ser Pro  
 65 70 75 80  
 Gly Phe Cys Gln Lys Ile Glu Gln Val Gln Leu Thr His Cys Tyr Cys  
 85 90 95  
 Arg Ser Leu Lys Leu Pro Gly Leu Val Leu Asp Pro Ser Arg Asn His  
 100 105 110  
 Gln Val Arg His Leu Glu Pro Pro Gly Glu Gly Pro Pro Ser Arg Ala  
 115 120 125  
 Leu Lys Glu Leu His Glu Ile Arg Asn Cys Leu Met Lys Cys Ile Ser  
 130 135 140  
 Leu Tyr Leu Glu Asp Glu Ala Gln Thr Pro Thr Pro Leu Ser Pro Pro  
 145 150 155 160  
 Gly Leu Gly Met Ser Pro Ala Ala Arg Pro Arg Ser Phe Pro Gly Gly  
 165 170 175  
 Leu Gly Glu Val Gly Ala Gly Thr Ile Ser Val Pro Ser Thr Leu Thr  
 180 185 190  
 Pro Ser Thr Ser Glu Thr Thr Leu Pro Gln Pro Asp Thr Glu

195

200

205

&lt;210&gt; 5453

&lt;211&gt; 1974

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5453

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1380



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 1920  
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 1974

&lt;210&gt; 5454

&lt;211&gt; 320

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5454

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			20					25					30		
Arg	Ile	Asp	Ser	Lys	Ala	Trp	Arg	Glu	Thr	Leu	Thr	Leu	Gln	Lys	Gln
			35					40					45		
Leu	Arg	Tyr	Arg	Phe	Pro	Glu	Leu	Ala	Asp	Pro	Asp	Thr	Cys	Tyr	Gly
			50					55					60		
Phe	Arg	Phe	Cys	His	Gln	Leu	Asp	Phe	Ser	Thr	Ser	Gly	Ala	Leu	Cys
					70					75				80	
Val	Ala	Leu	Asn	Lys	Ala	Ala	Ala	Gly	Ser	Ala	Tyr	Arg	Cys	Phe	Lys
				85						90				95	
Glu	Arg	Arg	Val	Thr	Lys	Ala	Tyr	Leu	Ala	Leu	Leu	Arg	Gly	His	Ile
			100					105					110		
Gln	Glu	Ser	Arg	Val	Thr	Ile	Ser	His	Ala	Ile	Gly	Arg	Asn	Ser	Thr
			115					120					125		
Glu	Gly	Arg	Ala	His	Thr	Met	Cys	Ile	Glu	Gly	Ser	Gln	Gly	Val	Ala
			130					135					140		
Gly	Cys	Glu	Asn	Pro	Lys	Pro	Ser	Leu	Thr	Asp	Leu	Val	Val	Leu	Glu
					150					155				160	
His	Gly	Leu	Tyr	Ala	Gly	Asp	Pro	Val	Ser	Lys	Val	Leu	Leu	Lys	Pro
				165						170				175	
Leu	Thr	Gly	Arg	Thr	His	Gln	Leu	Arg	Val	His	Cys	Ser	Ala	Leu	Gly
			180					185					190		
His	Pro	Val	Val	Gly	Asp	Leu	Thr	Tyr	Gly	Glu	Val	Ser	Gly	Arg	Glu
			195					200					205		
Asp	Arg	Pro	Phe	Arg	Met	Met	Leu	His	Ala	Phe	Tyr	Leu	Arg	Ile	Pro

210		215		220
Thr Asp Thr Glu Cys Val	Glu Val Cys Thr Pro	Asp Pro Phe Leu Pro		
225	230	235	240	
Ser Leu Asp Ala Cys Trp	Ser Pro His Thr Leu	Leu Gln Ser Leu Asp		
	245	250	255	
Gln Leu Val Gln Ala Leu	Arg Ala Thr Pro Asp	Pro Asp Pro Glu Asp		
	260	265	270	
Arg Gly Pro Arg Pro Gly	Ser Pro Ser Ala Leu	Leu Pro Gly Pro Gly		
	275	280	285	
Arg Pro Pro Pro Pro Pro	Thr Lys Pro Pro Glu	Thr Glu Ala Gln Arg		
	290	295	300	
Gly Pro Cys Leu Gln Trp	Leu Ser Glu Trp Thr	Leu Glu Pro Asp Ser		
305	310	315	320	

<210> 5455  
 <211> 975  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
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 240  
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 300  
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 420  
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 480  
 aatagccacc ttccaggcgt gagtcctgga gataaaaatg gattttaacc taggactgcc  
 540  
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 660  
 ccacatcaa cccactgcc actggctgtc cgtctggcct gccccgcggt tccaaccaca  
 720  
 gtggtgaagc agcgcttgca gatgtacaac tcgcagcacc ggtcagcaat cagctgcac  
 780  
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 840  
 accatgaaca tccccttcca gtccatccac ttcacacct atgagttcct gcaggagcag  
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 960  
 gccctcgccg cggcg  
 975

<210> 5456  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

<400> 5456  
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 Leu Tyr Gly Leu Ala Ser Phe Arg Pro Gly Val Gly Pro His Pro Thr  
 35 40 45  
 His Cys Pro Leu Ala Val Arg Leu Ala Cys Pro Ala Val Pro Thr Thr  
 50 55 60  
 Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His Arg Ser Ala  
 65 70 75 80  
 Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu Gly Ala Phe  
 85 90 95  
 Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Ile Pro Phe Gln Ser  
 100 105 110  
 Ile His Phe Ile Thr Tyr Glu Phe Leu Gln Glu Gln Val Asn Pro His  
 115 120 125  
 Arg Thr Tyr Asn Pro Gln Ser His Ile Ile Ser Gly Gly Leu Ala Gly  
 130 135 140  
 Ala Leu Ala Ala Ala  
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<210> 5457  
 <211> 448  
 <212> DNA  
 <213> Homo sapiens

<400> 5457  
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 120  
 tccgtgtcca cccacatgac agcaggagcg atggccggga tcctggagca ctcggtcatg  
 180  
 taccgggtgg actcggtgaa ggtaatgtgg actgtggagc tctgtgctgg tcactttcaa  
 240  
 ccctgaacct gatgctactt attttgcagt tctaagtga aagtcggcct ggtggatgct  
 300  
 tcccattata atattaaatt tgcttcttcg tgaggtcaca cctcacatcc ccagtgtcac  
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 420  
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 448

<210> 5458  
 <211> 81  
 <212> PRT

<213> Homo sapiens

<400> 5458

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Asp Ser Arg Asp Gly Gly Gly Gly Lys Asp Ala Thr Gly Ser Glu Asp
      20           25           30
Tyr Glu Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His Met Thr Ala
      35           40           45
Gly Ala Met Ala Gly Ile Leu Glu His Ser Val Met Tyr Pro Val Asp
      50           55           60
Ser Val Lys Val Met Trp Thr Val Glu Leu Cys Ala Gly His Phe Gln
65           70           75           80
Pro

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<210> 5459

<211> 1468

<212> DNA

<213> Homo sapiens

<400> 5459

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120
cggatggagc tgcgcagcgg gagcgtgggc agccaggcgg tggcgcgagg gatggatggg
180
gacagccgag atggcgggcg cggcaaggac gccaccgggt cggaggacta cgagaacctg
240
ccgactagcg cctccgtgtc caccacatg acagcaggag cgatggccgg gatcctggag
300
cactcgggtca tgtacccggg ggactcgggt aagacacgaa tgcagagttt gagtccagat
360
cccaaagccc agtacacaag tatctacgga gccctcaaga aaatcatgca gaccgaaggc
420
ttctggaggc ccttgcgagg cgtcaacgtc atgatcatgg gtgcagggcc agcccatgcc
480
atgtattttg cctgctatga aaacatgaaa aggactttaa atgacgtttt ccaccaccaa
540
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600
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660
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720
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780
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840
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900
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960

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 1080  
 aaggcctttc ccaccttaag cttccgggga tctgggaatt ttaccccat tctcttctgt  
 1140  
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<210> 5460

<211> 155

<212> PRT

<213> Homo sapiens

<400> 5460

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			20					25					30		
Ser	Glu	Asp	Tyr	Glu	Asn	Leu	Pro	Thr	Ser	Ala	Ser	Val	Ser	Thr	His
		35					40					45			
Met	Thr	Ala	Gly	Ala	Met	Ala	Gly	Ile	Leu	Glu	His	Ser	Val	Met	Tyr
	50					55					60				
Pro	Val	Asp	Ser	Val	Lys	Thr	Arg	Met	Gln	Ser	Leu	Ser	Pro	Asp	Pro
65					70				75					80	
Lys	Ala	Gln	Tyr	Thr	Ser	Ile	Tyr	Gly	Ala	Leu	Lys	Lys	Ile	Met	Gln
				85				90						95	
Thr	Glu	Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met
			100					105					110		
Gly	Ala	Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met
	115					120						125			
Lys	Arg	Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu
	130					135						140			
Ala	Asn	Gly	Ile	Leu	Lys	Ala	Phe	Val	Trp	Ser					
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<210> 5461

<211> 1725

<212> DNA

<213> Homo sapiens

<400> 5461

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120  
ccgggaggca gcaacgcaag gagccaaaat agtttctttg ccggaatgct ttaattctcc  
180  
atatggagcg aaatatatttc ctgaatatgc agagaaaatt cctgggtgaat ccacacagaa  
240  
gctttctgaa gtagcaaagg aatgcagcat atatctcatt ggaggtaact tcctaccac  
300  
aaggctctat ccctgaagag gatgctggga aattatataa cacctgtgct gtgtttgggc  
360  
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420  
gaaaaattac atttcaagaa tctaaaacat tgagtccggg tgatagtttc tccacatttg  
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atactcgtat gtaccagata agtttgctc tttagcaata tcagtagaag acaatcaggt  
540  
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720  
cctattagge tacagttgag tacctcccat ctagataata agcattcaat tagaatgaat  
780  
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900  
gtgatcatta tgtcatggag gatttcccct gccacacat gctgtaggga gttaactttt  
960  
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1020  
gacatgcggt ttgcagagct tgcacaaata tacgcacaga gaggctgcca gctgttggtg  
1080  
tatccaggag cttttaatct gaccactgga ccagcccatt gggagttact tcagcgaagc  
1140  
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1200  
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1260  
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1320  
cgccagcaaa tccccgtttt tagacagaag cgatcagacc tctatgctgt ggagatgaaa  
1380  
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1440  
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<210> 5462

<211> 159

<212> PRT

<213> Homo sapiens

<400> 5462

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Phe	His	Leu	Cys	Ile	Phe	Cys	Leu	Glu	Thr	Ala	Tyr	Cys	Arg	Val	Gly
		20					25					30			
Leu	Gly	Ile	Cys	Tyr	Asp	Met	Arg	Phe	Ala	Glu	Leu	Ala	Gln	Ile	Tyr
	35				40						45				
Ala	Gln	Arg	Gly	Cys	Gln	Leu	Val	Tyr	Pro	Gly	Ala	Phe	Asn	Leu	
50					55					60					
Thr	Thr	Gly	Pro	Ala	His	Trp	Glu	Leu	Leu	Gln	Arg	Ser	Arg	Ala	Val
65				70						75				80	
Asp	Asn	Gln	Val	Tyr	Val	Ala	Thr	Ala	Ser	Pro	Ala	Arg	Asp	Asp	Lys
		85					90						95		
Ala	Ser	Tyr	Val	Ala	Trp	Gly	His	Ser	Thr	Val	Val	Asn	Pro	Trp	Gly
		100					105					110			
Glu	Val	Leu	Ala	Lys	Ala	Gly	Thr	Glu	Glu	Ala	Ile	Val	Tyr	Ser	Asp
		115				120					125				
Ile	Asp	Leu	Lys	Lys	Leu	Ala	Glu	Ile	Arg	Gln	Gln	Ile	Pro	Val	Phe
	130				135					140					
Arg	Gln	Lys	Arg	Ser	Asp	Leu	Tyr	Ala	Val	Glu	Met	Lys	Lys	Pro	
145					150					155					

<210> 5463

<211> 792

<212> DNA

<213> Homo sapiens

<400> 5463

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 180  
 ggtttctggg aaccaccaac acttgcaggt ttagcttttt cccaggggtg actacaagaa  
 240  
 agaaaacat gtttttgcaa gattaaaatg tggttgagtg tgcctaaatt aaccatcccc  
 300  
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 360  
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 420  
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 480  
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gtgaagcagc gcttgcatat gtacaactcg cagcaccggc cagcaatcag ctgcatccgg  
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<210> 5464

<211> 111

<212> PRT

<213> Homo sapiens

<400> 5464

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Leu	His	Asp	Ala	Val	Met	Asn	Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu
			20					25					30		
Gln	Met	Tyr	Asn	Ser	Gln	His	Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr
		35					40					45			
Val	Trp	Arg	Thr	Glu	Gly	Leu	Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr
	50					55					60				
Gln	Leu	Thr	Met	Asn	Ile	Pro	Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr
65					70					75				80	
Glu	Phe	Leu	Gln	Glu	Gln	Val	Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln
				85					90					95	
Ser	His	Ile	Ile	Ser	Gly	Gly	Leu	Ala	Gly	Ala	Leu	Ala	Ala	Ala	
			100					105						110	

<210> 5465

<211> 497

<212> DNA

<213> Homo sapiens

<400> 5465

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 120  
 ggggtgctgct ggagggagga cagacggaca ggcggcctgg gtggccggcc ccagaaaggc  
 180  
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 240  
 gtgggattgt ctgggacatc gccaccaaca cgggtgtcaga gccatcagtg gggacatcgg  
 300  
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gcagccacgc agtgcac

497

<210> 5466

<211> 134

<212> PRT

<213> Homo sapiens

<400> 5466

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Asp	Gly	Gln	Ala	Ala	Trp	Val	Ala	Gly	Pro	Arg	Lys	Ala	Gly	Val	Asp
			20					25					30		
Val	Arg	Asp	Glu	Pro	Pro	Ala	Lys	Pro	Val	Gly	Met	Ser	Gly	Pro	Ser
		35					40					45			
Trp	Trp	Asp	Cys	Leu	Gly	His	Arg	His	Gln	His	Gly	Val	Arg	Ala	Ile
	50					55					60				
Ser	Gly	Asp	Ile	Gly	Gly	Ala	Thr	Thr	Arg	Trp	Gly	Ile	Phe	Asn	Arg
65					70					75				80	
Leu	Glu	Pro	Leu	Arg	Leu	Glu	Arg	Pro	Thr	Pro	Gly	Arg	Arg	Pro	Pro
				85					90					95	
Leu	Thr	Pro	Leu	Leu	Pro	Leu	Leu	Trp	Asp	Pro	Pro	Val	Asp	Thr	Pro
			100					105					110		
Asp	Glu	Asp	Thr	Gln	Glu	Ala	Ser	Ser	Gln	Asp	Arg	Arg	Gln	Leu	Pro
		115					120						125		
Gly	Gln	Pro	Arg	Ser	Ala										
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<210> 5467

<211> 1329

<212> DNA

<213> Homo sapiens

<400> 5467

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360  
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420  
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540  
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600

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 720  
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 960  
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 1080  
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 gggttccttt ctggcccaaa gtaggtccaa gccctttagt ttatttcgcc acctgctgta  
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 1329

&lt;210&gt; 5468

&lt;211&gt; 363

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5468

Met	Asp	Ala	Val	Leu	Glu	Pro	Phe	Pro	Ala	Asp	Arg	Leu	Phe	Pro	Gly
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Ser	Ser	Phe	Leu	Asp	Leu	Gly	Asp	Leu	Asn	Glu	Ser	Asp	Phe	Leu	Asn
			20					25					30		
Asn	Ala	His	Phe	Pro	Glu	His	Leu	Asp	His	Phe	Thr	Glu	Asn	Met	Glu
			35				40					45			
Asp	Phe	Ser	Asn	Asp	Leu	Phe	Ser	Ser	Phe	Phe	Asp	Asp	Pro	Val	Leu
			50			55					60				
Asp	Glu	Lys	Ser	Pro	Leu	Leu	Asp	Met	Glu	Leu	Asp	Ser	Pro	Thr	Pro
65					70				75					80	
Gly	Ile	Gln	Ala	Glu	His	Ser	Tyr	Ser	Leu	Ser	Gly	Asp	Ser	Ala	Pro
			85						90					95	
Gln	Ser	Pro	Leu	Val	Pro	Ile	Lys	Met	Glu	Asp	Thr	Thr	Gln	Asp	Ala
			100					105					110		
Glu	His	Gly	Ala	Trp	Ala	Leu	Gly	His	Lys	Leu	Cys	Ser	Ile	Met	Val
			115				120					125			
Lys	Gln	Glu	Gln	Ser	Pro	Glu	Leu	Pro	Val	Asp	Pro	Leu	Ala	Ala	Pro
			130			135					140				
Ser	Ala	Met	Ala	Ala	Ala	Ala	Ala	Met	Ala	Thr	Thr	Pro	Leu	Leu	Gly
145					150				155					160	
Leu	Ser	Pro	Leu	Ser	Arg	Leu	Pro	Ile	Pro	His	Gln	Ala	Pro	Gly	Glu

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<210> 5469
<211> 1292
<212> DNA
<213> Homo sapiens
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4645

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 780  
 cagagcccct gtgaagagaa tctggtgact tcagttgagc cccagcaga ggtgactcca  
 840  
 tcagagagca gtgagagcat ctccctcgtg acacagatcg ccaacccggc cactgcacct  
 900  
 gaggcacgag tgctacccaa ggacctgtcc caaaagctgc tagaggcatc cttggaggaa  
 960  
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 1020  
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 1080  
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 1140  
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 1200  
 aaagactttg acttggacat gactgaagag gaggtgcaga tggcactttc caaagtggat  
 1260  
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 1292

&lt;210&gt; 5470

&lt;211&gt; 427

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5470

Xaa	Ala	Ala	Ala	Ser	Thr	Glu	Gly	Glu	Asp	Val	Gly	Trp	Trp	Arg	Ser
1				5					10					15	
Trp	Leu	Gln	Gln	Ser	Tyr	Gln	Ala	Val	Lys	Glu	Lys	Ser	Ser	Glu	Ala
			20					25					30		
Leu	Glu	Phe	Met	Lys	Arg	Asp	Leu	Thr	Glu	Phe	Thr	Gln	Val	Val	Gln
		35				40					45				
His	Asp	Thr	Ala	Cys	Thr	Ile	Ala	Ala	Thr	Ala	Ser	Val	Val	Lys	Glu
	50					55					60				
Lys	Leu	Ala	Thr	Glu	Gly	Ser	Ser	Gly	Ala	Thr	Glu	Lys	Met	Lys	Lys
65				70				75						80	
Gly	Leu	Ser	Asp	Phe	Leu	Gly	Val	Ile	Ser	Asp	Thr	Phe	Ala	Pro	Ser
			85					90						95	
Pro	Asp	Lys	Thr	Ile	Asp	Cys	Asp	Val	Ile	Thr	Leu	Met	Gly	Thr	Pro
			100					105					110		
Ser	Gly	Thr	Ala	Glu	Pro	Tyr	Asp	Gly	Thr	Lys	Ala	Arg	Leu	Tyr	Ser
		115					120					125			
Leu	Gln	Ser	Asp	Pro	Ala	Thr	Tyr	Cys	Asn	Glu	Pro	Asp	Gly	Pro	Pro
	130					135					140				
Glu	Leu	Phe	Asp	Ala	Trp	Leu	Ser	Gln	Phe	Cys	Leu	Glu	Glu	Lys	Lys
145				150						155				160	
Gly	Glu	Ile	Ser	Glu	Leu	Leu	Val	Gly	Ser	Pro	Ser	Ile	Arg	Ala	Leu
			165					170					175		
Tyr	Thr	Lys	Met	Val	Pro	Ala	Ala	Val	Ser	His	Ser	Glu	Phe	Trp	His
		180						185					190		
Arg	Tyr	Phe	Tyr	Lys	Val	His	Gln	Leu	Glu	Gln	Glu	Gln	Ala	Arg	Arg

195	200	205
Asp Ala Leu Lys Gln Arg	Ala Glu Gln Ser Ile Ser	Glu Glu Pro Gly
210	215	220
Trp Glu Glu Glu Glu Glu	Glu Leu Met Gly Ile Ser	Pro Ile Ser Pro
225	230	235
Lys Glu Ala Lys Val Pro	Val Ala Lys Ile Ser Thr	Phe Pro Glu Gly
245	250	255
Glu Pro Gly Pro Gln Ser	Pro Cys Glu Glu Asn Leu	Val Thr Ser Val
260	265	270
Glu Pro Pro Ala Glu Val	Thr Pro Ser Glu Ser Ser	Glu Ser Ile Ser
275	280	285
Leu Val Thr Gln Ile Ala	Asn Pro Ala Thr Ala Pro	Glu Ala Arg Val
290	295	300
Leu Pro Lys Asp Leu Ser	Gln Lys Leu Leu Glu Ala	Ser Leu Glu Glu
305	310	315
Gln Gly Leu Ala Val Asp	Val Gly Glu Thr Gly Pro	Ser Pro Pro Ile
325	330	335
His Ser Lys Pro Leu Thr	Pro Ala Gly His Thr Gly	Gly Pro Glu Pro
340	345	350
Arg Pro Pro Ala Arg Val	Glu Thr Leu Arg Glu Glu	Ala Pro Thr Asp
355	360	365
Leu Arg Val Phe Glu Leu	Asn Ser Asp Ser Gly Lys	Ser Thr Pro Ser
370	375	380
Asn Asn Gly Lys Lys Gly	Ser Ser Thr Asp Ile Ser	Glu Asp Trp Glu
385	390	395
Lys Asp Phe Asp Leu Asp	Met Thr Glu Glu Glu Val	Gln Met Ala Leu
405	410	415
Ser Lys Val Asp Ala Ser	Gly Glu Leu Lys Met	
420	425	

&lt;210&gt; 5471

&lt;211&gt; 534

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5471

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 120  
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 180  
 gacacgaatg tgtagctatg tgcgagtgc cacggagtgg tgagtgcagg gacccagggc  
 240  
 cggcctgcgt cgggtgcgcag ggcataatagg ggcgtgcacg cagtcttggga ggtgtgtgca  
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 360  
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 420  
 gtggggggcag ccgggggacag ggctgggtgt gcgtgactcg ggtgtgccgg gaccacaga  
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 534

<210> 5472  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 5472  
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 20 25 30  
 Pro Ser Ala His Leu Leu Gly Leu His Thr Gln Arg His Ala Asp Gly  
 35 40 45  
 Phe Leu Cys Leu Cys Thr His Ala Gly Ala Gly Gly Ser Val His Thr  
 50 55 60  
 Pro Pro Arg Leu Arg Ala Arg Pro Tyr Met Pro Cys Ala Pro Thr Gln  
 65 70 75 80  
 Ala Gly Leu Gly Ser Leu His Ser Pro Leu Arg Val His Ser His Ile  
 85 90 95  
 Ala Thr His Ser Cys Pro His Lys Leu Val Ser Leu Tyr Ser Ala His  
 100 105 110  
 Gly His Thr Cys Ala Pro His Leu Ala Thr Arg Thr Pro Gly Leu Cys  
 115 120 125  
 Ile Pro His Pro Gly Ser Gly Pro Arg Val Val Gly Pro Ala Gly Ser  
 130 135 140  
 Ala Ala Ala Ser Ala Arg Thr Val Leu Phe Leu Arg Pro Arg Gly Ala  
 145 150 155 160  
 Ala

<210> 5473  
 <211> 691  
 <212> DNA  
 <213> Homo sapiens

<400> 5473  
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 cgctgccgcg ccccgcgccc ccaggaggcc gcaccctgcg ccaggggccc gagacagcaa  
 120  
 catcttcttg ggctgcagg agacctgaca gatgccaaaa caaaggaaca gttgggatcc  
 180  
 aggcagcatg aggtagaatg gcaaacctac cagggtattc tgaagaagac aagagtcatg  
 240  
 gaaaaaacca agtggctgga tatcaaagga aatcatgaaa aagatggagg agctcttatt  
 300  
 actggccaag gaaagcagtc ggagcaacca tacaatttgg tttggacact ttacaacatc  
 360  
 cactattctt tctccatcac caggaatccg gtcaataatg agttcggcta tagcttattt  
 420  
 gtgtggacat ctccatacac ttggtggact gatgcctgtt ttgcacactc gtcacttcca  
 480  
 gggcactttg gaacttgagg tgggagactg gaaggataat aggaggtacc ggatttttgc  
 540

ttttgatcac gacctcttta gctttgcaga ttgatcttt gggaagtggc ctgtggttct  
 600  
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 660  
 tcttcactca acccacatta gattggtaac a  
 691

<210> 5474  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 5474  
 Met Lys Lys Met Glu Glu Leu Leu Leu Leu Ala Lys Glu Ser Ser Arg  
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 Ser Asn His Thr Ile Trp Phe Gly His Phe Thr Thr Ser Thr Ile Leu  
 20 25 30  
 Ser Pro Ser Pro Gly Ile Arg Ser Ile Met Ser Ser Ala Ile Ala Tyr  
 35 40 45  
 Leu Cys Gly His Leu His Thr Leu Gly Gly Leu Met Pro Val Leu His  
 50 55 60  
 Thr Arg His Phe Gln Gly Thr Leu Glu Leu Glu Val Gly Asp Trp Lys  
 65 70 75 80  
 Asp Asn Arg Arg Tyr Arg Ile Phe Ala Phe Asp His Asp Leu Phe Ser  
 85 90 95  
 Phe Ala Asp Leu Ile Phe Gly Lys Trp Pro Val Val Leu Ile Thr Asn  
 100 105 110  
 Pro Lys Ser Leu Leu Tyr Ser Cys Gly Glu His Glu Pro Leu Glu Arg  
 115 120 125  
 Leu Leu His Ser Thr His Ile Arg Leu Val Thr  
 130 135

<210> 5475  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

<400> 5475  
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 120  
 aacaaccccc acgccagcta cagcgccctt ccgccagtga gctcctccga cagcgaggcc  
 180  
 cccgaggcca accccgccga cggcagtga gctgacgagg acgatgagga ccgggggggtc  
 240  
 atggccgtca cagcggtaac cgccacagct gccagcgaca ggatggagag cgactcagac  
 300  
 tcagacaaga gtagcgacaa cagtggcctg aagaggaaga cgctgctgct aaagatgtcg  
 360  
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 420  
 gaagaggaga actcggaaag ctcatctgag tcggagaaga ccagcgacca ggacttcaca  
 480

cctgagaaga aagcagcggg cggggcgcca cggagggggc ctctgggggg acggaaaaaa  
 540  
 aagaaggcgc cgtcagcctc cgactccgac tccaaggccg attcggacgg ggccaagcct  
 600  
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 628

<210> 5476  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 5476  
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 Asp Lys Cys Lys Asp Lys Tyr Gly Lys Pro Asn Lys Arg Lys Gly Phe  
                   20                  25                  30  
 Asn Glu Gly Leu Trp Glu Ile Gln Asn Asn Pro His Ala Ser Tyr Ser  
           35                  40                  45  
 Ala Pro Pro Pro Val Ser Ser Ser Asp Ser Glu Ala Pro Glu Ala Asn  
       50                  55                  60  
 Pro Ala Asp Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val  
 65                  70                  75                  80  
 Met Ala Val Thr Ala Val Thr Ala Thr Ala Ala Ser Asp Arg Met Glu  
                   85                  90                  95  
 Ser Asp Ser Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg  
           100                  105                  110  
 Lys Thr Pro Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala  
       115                  120                  125  
 Ser Ser Asp Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Glu Asn  
       130                  135                  140  
 Ser Glu Ser Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr  
 145                  150                  155                  160  
 Pro Glu Lys Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly  
           165                  170                  175  
 Gly Arg Lys Lys Lys Lys Ala Pro Ser Ala Ser Asp Ser Asp Ser Lys  
       180                  185                  190  
 Ala Asp Ser Asp Gly Ala Lys Pro Glu Pro Val Ala Met Ala Arg Ser  
       195                  200                  205  
 Ala

<210> 5477  
 <211> 727  
 <212> DNA  
 <213> Homo sapiens

<400> 5477  
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 120  
 gggcccttct cactgagctc gtgaagtgcc tcagtcaagg caaggtcccc tgggtccatat  
 180



gggccccccc gcccatgggg ttgggctggt ccttatagtg cctacgttag tctgtgtgga  
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 300  
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 360  
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 420  
 gactcatcgt cgctcagccc atagggaagc ccaggcctgg cccccagaga gtctccttcc  
 480  
 gagtctctct cgaagcccat gagctggcca ctggtgccgt cgccttcctc ctcttctct  
 540  
 tctcctcaa actccagatc ctggcctagt agcaaatac tctccaatac cagggccccg  
 600  
 ggtccttcgt cgagggagtc ttcagtatcc actttgaccc cctcgcattt cacgggctgc  
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 720  
 gcggccg  
 727

<210> 5478  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 5478  
 Ser Ala Ser Val Lys Ala Arg Ser Pro Gly Pro Tyr Gly Pro Pro Arg  
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 Pro Trp Gly Trp Ala Gly Pro Tyr Ser Ala Tyr Val Ser Leu Cys Gly  
 20 25 30  
 Ala Pro Gly Gln Arg Gly Arg Lys Arg Trp Leu Leu Val Arg Leu Tyr  
 35 40 45  
 Lys Thr Trp Pro Leu Thr Cys Arg Pro Pro Thr Gln Leu Ala Gly Trp  
 50 55 60  
 Ala Gly Leu Ser Pro Leu Ala Ser Pro Gly Pro Leu Ala Gly Ser Ser  
 65 70 75 80  
 Thr Ser Leu Ser Ala Leu Ser Ala Arg Pro Pro Pro Asp Ser Ser Ser  
 85 90 95  
 Leu Ser Pro

<210> 5479  
 <211> 1386  
 <212> DNA  
 <213> Homo sapiens

<400> 5479  
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 120  
 atgcgagagg agcagctggc acgggaggcc gagggccggg cggagcggga ggcggaggcc  
 180

cggaggcggg aggagcagga ggcacgagag aaggcgcagg ccgagcagga ggagcaggag  
 240  
 cggtctgcaga agcagaaaga ggaggccgaa gctcggtcgc gggaagaggc ggagcggcag  
 300  
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 420  
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 480  
 gctcgggtccc cagggtctgca gaaggaggct gtgcagaaag aggagcccat cccacaggag  
 540  
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 agccgaacac cagagacact cctgcccttt gcagaggcag aagccttctt caagaaagct  
 720  
 gtggtgcagt ccccgaggt cacagaagtc cttaagagg gtttgcttg gatccgggca  
 780  
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 960  
 cgcacgcga gacatccctt ctccccata cacacatata cactcacagc ctctctggcc  
 1020  
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 1080  
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 1260  
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 1320  
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 1380  
 aaaaaa  
 1386

&lt;210&gt; 5480

&lt;211&gt; 251

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5480

Ala	Gly	Thr	Thr	Asp	Arg	Glu	Glu	Ala	Thr	Arg	Leu	Leu	Ala	Glu	Lys
1				5				10						15	
Arg	Arg	Gln	Ala	Arg	Glu	Gln	Arg	Glu	Arg	Glu	Glu	Gln	Glu	Arg	Arg
			20				25					30			
Leu	Gln	Ala	Glu	Arg	Asp	Lys	Arg	Met	Arg	Glu	Glu	Gln	Leu	Ala	Arg

```
<210> 5481
<211> 1513
<212> DNA
<213> Homo sapiens
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4653

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 720  
 aagattatTTT gcatgggtgc aaaagaaaat ggTTtgccgc tggagtatca agagaagtta  
 780  
 aaagcaatag aaccaaataga ctatacagga aaggTctcag aagaaattga agacatcatc  
 840  
 aaaaaggggg aaacacaaac tctttagaac ataacagaat atatctaagg gtattctatg  
 900  
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 960  
 tccattttca gcagtgtctt gaaggagtat cttacttggg tgattccttg tttttagact  
 1020  
 ataaaaagaa actgggatag gagttagaca atttaaaagg ggtgtatgag ggcctgaaat  
 1080  
 atgtgacaaa tgaatgtgag tacccttct gtgaacactg aaagctattc tcttgaattg  
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 1260  
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 1320  
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 1380  
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 1440  
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 1500  
 aaaaaaaaaa aaa  
 1513

&lt;210&gt; 5482

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5482

Met	Ala	Asn	Ser	Gly	Cys	Lys	Asp	Val	Thr	Gly	Pro	Asp	Glu	Glu	Ser
1				5					10					15	
Phe	Leu	Tyr	Phe	Ala	Tyr	Gly	Ser	Asn	Leu	Leu	Thr	Glu	Arg	Ile	His
			20					25					30		
Leu	Arg	Asn	Pro	Ser	Ala	Ala	Phe	Cys	Val	Ala	Arg	Leu	Gln	Asp	
		35					40					45			
Phe	Lys	Leu	Asp	Phe	Gly	Asn	Ser	Gln	Gly	Lys	Thr	Ser	Gln	Thr	Trp
	50					55				60					
His	Gly	Gly	Ile	Ala	Thr	Ile	Phe	Gln	Ser	Pro	Gly	Asp	Glu	Leu	Trp
65					70				75					80	
Gly	Val	Val	Trp	Lys	Met	Asn	Lys	Ser	Asn	Leu	Asn	Ser	Leu	Asp	Glu
				85					90					95	
Gln	Glu	Gly	Val	Lys	Ser	Gly	Met	Tyr	Val	Val	Ile	Glu	Val	Lys	Val
			100					105						110	
Ala	Thr	Gln	Glu	Gly	Lys	Glu	Ile	Thr	Cys	Arg	Ser	Tyr	Leu	Met	Thr

115	120	125
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130	135	140
Met Gly Ala Lys Glu Asn Gly Leu Pro Leu Glu Tyr Gln Glu Lys Leu		
145	150	155
Lys Ala Ile Glu Pro Asn Asp Tyr Thr Gly Lys Val Ser Glu Glu Ile		
165	170	175
Glu Asp Ile Ile Lys Lys Gly Glu Thr Gln Thr Leu		
180	185	

&lt;210&gt; 5483

&lt;211&gt; 1552

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5483

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120
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180
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240
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300
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360
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420
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480
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660
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720
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780
gatgcaaagt cccaggtatg ggccttcaca tacaccaga agatcctcca ggaggagctg
840
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1140

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<210> 5484

<211> 357

<212> PRT

<213> Homo sapiens

<400> 5484

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			20					25					30		
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		50				55					60				
Leu	Ser	Pro	Glu	Gln	Lys	Ala	Arg	Arg	Leu	Asp	Pro	Thr	Glu	Pro	Ile
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Phe	Asp	Tyr	Leu	Gly	Lys	Tyr	Asp	Met	Asp	Met	Asp	Ile	Trp	Gly	Gly
			100					105					110		
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		115					120					125			
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Lys	Arg	Thr	Ala	Glu	Val	Trp	Met	Asp	Glu	Tyr	Lys	Gln	Tyr	Tyr	Tyr
				165					170					175	
Ala	Ala	Arg	Pro	Phe	Ala	Leu	Glu	Arg	Pro	Phe	Gly	Asn	Val	Glu	Ser
			180					185					190		
Arg	Leu	Asp	Leu	Arg	Lys	Asn	Leu	Arg	Cys	Gln	Ser	Phe	Lys	Trp	Tyr
		195				200						205			
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		210				215					220				
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			260					265					270				
Gln	Lys	Ile	Leu	Gln	Glu	Glu	Leu	Cys	Leu	Ser	Val	Ile	Thr	Leu	Phe		
		275					280					285					
Pro	Gly	Ala	Pro	Val	Val	Leu	Val	Leu	Cys	Lys	Asn	Gly	Asp	Asp	Arg		
	290					295					300						
Gln	Gln	Trp	Thr	Lys	Thr	Gly	Ser	His	Ile	Glu	His	Ile	Ala	Ser	His		
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Leu	Cys	Leu	Asp	Thr	Asp	Met	Phe	Gly	Asp	Gly	Thr	Glu	Asn	Gly	Lys		
			325					330						335			
Glu	Ile	Val	Val	Asn	Pro	Cys	Glu	Ser	Ser	Leu	Met	Ser	Gln	His	Trp		
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&lt;210&gt; 5485

&lt;211&gt; 1549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5485

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<210> 5486

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5486

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			20					25					30		
Arg	Ser	Arg	Ser	Arg	Ser	Phe	Ser	Arg	Ser	Ser	Arg	Ser	His	Ser	Arg
		35					40					45			
Val	Ser	Ser	Arg	Phe	Ser	Ser	Arg	Ser	Arg	Arg	Ser	Lys	Ser	Arg	Ser
	50					55					60				
Arg	Ser	Arg	Arg	Arg	His	Gln	Arg	Lys	Tyr	Arg	Arg	Tyr	Ser	Arg	Ser
65					70				75					80	
Tyr	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Arg	Tyr	Arg	Glu	Arg
			85					90					95		
Arg	Tyr	Gly	Phe	Thr	Arg	Arg	Tyr	Tyr	Arg	Ser	Pro	Ser	Arg	Tyr	Arg
		100					105					110			
Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Ser	Tyr	Cys	Gly
	115					120					125				
Arg	Ala	Tyr	Ala	Ile	Ala	Arg	Gly	Gln	Arg	Tyr	Tyr	Gly	Phe	Gly	Arg
	130				135						140				
Thr	Val	Tyr	Pro	Glu	Glu	His	Ser	Arg	Trp	Arg	Asp	Arg	Ser	Arg	Thr
145					150				155					160	
Arg	Ser	Arg	Ser	Arg	Thr	Pro	Phe	Arg	Leu	Ser	Glu	Lys	Asp	Arg	Met
			165					170					175		
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		180					185					190			
Thr	Asn	Ile	Asp	Leu	Pro	Ala	Ser	Leu	Arg	Thr	Val	Pro	Ser	Ala	Lys
	195					200					205				
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	210				215					220					
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225          230          235          240
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Lys Pro Ile Gln Lys Ser Ala Lys Ala Ala Thr Glu Glu Ala Ser Ser
          260          265          270
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Pro Ile
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&lt;210&gt; 5487

&lt;211&gt; 1716

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5487

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 1716

&lt;210&gt; 5488

&lt;211&gt; 272

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5488

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			20					25					30		
Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met	Gly	Ala
		35					40					45			
Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met	Lys	Arg
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Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu	Ala	Asn
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Gly	Ile	Ala	Gly	Ser	Met	Ala	Thr	Leu	Leu	His	Asp	Ala	Val	Met	Asn
				85				90						95	
Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu	Gln	Met	Tyr	Asn	Ser	Gln	His
			100					105						110	
Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr	Val	Trp	Arg	Thr	Glu	Gly	Leu
		115					120						125		
Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr	Gln	Leu	Thr	Met	Asn	Ile	Pro
	130					135						140			
Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr	Glu	Phe	Leu	Gln	Glu	Gln	Val
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Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln	Ser	His	Ile	Ile	Ser	Gly	Gly
				165				170						175	
Leu	Ala	Gly	Ala	Leu	Ala	Ala	Ala	Ala	Thr	Thr	Pro	Leu	Asp	Val	Cys
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Lys	Thr	Leu	Leu	Asn	Thr	Gln	Glu	Asn	Val	Ala	Leu	Ser	Leu	Ala	Asn
		195				200								205	
Ile	Ser	Gly	Arg	Leu	Ser	Gly	Met	Ala	Asn	Ala	Phe	Arg	Thr	Val	Tyr

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225	230	235
Ile Tyr Gln Met Pro Ser Thr Ala Ile Ser Trp Ser Val Tyr Glu Phe		240
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Phe Lys Tyr Phe Leu Thr Lys Arg Gln Leu Glu Asn Arg Ala Pro Tyr		255
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		270

<210> 5489  
 <211> 1600  
 <212> DNA  
 <213> Homo sapiens

<400> 5489  
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<210> 5490  
 <211> 357  
 <212> PRT  
 <213> Homo sapiens

<400> 5490  
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 Leu Glu Lys Ile Leu Gln Arg Gln Phe Ser Ser Ser Asn Ser Pro Arg  
 35 40 45  
 Gly Ile Ile Phe Thr Arg Thr Arg Gln Ser Ala His Ser Leu Leu Leu  
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 Trp Leu Gln Gln Gln Gln Gly Leu Gln Thr Val Asp Ile Arg Ala Gln  
 65 70 75 80  
 Leu Leu Ile Gly Ala Gly Asn Ser Ser Gln Ser Thr His Met Thr Gln  
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 Arg Asp Gln Gln Glu Val Ile Gln Lys Phe Gln Asp Gly Thr Leu Asn  
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 115 120 125  
 Cys Asn Val Val Val Arg Tyr Gly Leu Leu Thr Asn Glu Ile Ser Met  
 130 135 140  
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 Val Ala Thr Glu Gly Ser Arg Glu Leu Lys Arg Glu Leu Ile Asn Glu  
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 Ala Leu Glu Thr Leu Met Glu Gln Ala Val Ala Ala Val Gln Lys Met  
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 Asp Gln Ala Glu Tyr Gln Ala Lys Ile Arg Asp Leu Gln Gln Ala Ala  
 195 200 205  
 Leu Thr Lys Arg Ala Ala Gln Ala Ala Gln Arg Glu Asn Gln Arg Gln  
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Lys	Ser	Val	Lys	Leu	Pro	Val	Leu	Lys	Val	Arg	Ser	Met	Leu	Leu	Glu
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Thr	Pro	Gln	Gly	Arg	Ile	Gln	Ala	Lys	Lys	Trp	Ser	Arg	Val	Pro	Phe
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Ser	Val	Pro	Asp	Phe	Asp	Phe	Leu	Gln	His	Cys	Ala	Glu	Asn	Leu	Ser
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&lt;210&gt; 5491

&lt;211&gt; 5555

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5491

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&lt;213&gt; Homo sapiens

&lt;400&gt; 5494

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			35				40					45		Pro
Lys	Pro	Leu	Pro	Lys	Asp	Gly	Tyr	Asp	Leu	Val	Gln	Glu	Leu	Cys
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Gly	Phe	Phe	Phe	Gly	Asn	Val	Ser	Leu	Cys	Cys	Asp	Val	Arg	Gln
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Gln	Thr	Leu	Lys	Asp	Asn	Leu	Gln	Leu	Pro	Leu	Gln	Phe	Leu	Ser
				85				90					95	Arg
Cys	Pro	Ser	Cys	Phe	Tyr	Asn	Leu	Leu	Asn	Leu	Phe	Cys	Glu	Leu
			100				105					110		Thr
Cys	Ser	Pro	Arg	Gln	Ser	Gln	Phe	Leu	Asn	Val	Thr	Ala	Thr	Glu
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Tyr	Val	Asp	Pro	Val	Thr	Asn	Gln	Thr	Lys	Thr	Asn	Val	Lys	Glu
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														Cys

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Arg	Asp	Val	Glu	Ala	Pro	Ser	Ser	Asn	Asp	Lys	Ala	Leu	Gly	Leu
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Pro	Phe	Phe	Arg	Thr	Glu	Gln	Leu	Ile	Ile	Arg	Ala	Pro	Leu	Thr
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Leu	Val	Ile	Thr	Phe	Pro	Val	Asn	Asn	Tyr	Tyr	Asn	Asp	Thr	Glu
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BNSDOCID: <WO\_\_0058473A2 | >



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Lys Ala Arg Leu Ile Ala Ser Asn Val Thr Glu Thr Met Gly Ile Asn
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Glu Gln Tyr Leu Thr Ile Ile Asp Asp Thr Ile Phe Asn Leu Gly Val
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Ser Leu Gly Ala Ile Phe Leu Val Thr Met Val Leu Leu Gly Cys Glu
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Leu Trp Ser Ala Val Ile Met Cys Ala Thr Ile Ala Met Val Leu Val
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Asn Met Phe Gly Val Met Trp Leu Trp Gly Ile Ser Leu Asn Ala Val
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Ser Leu Val Asn Leu Val Met Ser Cys Gly Ile Ser Val Glu Phe Cys
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&lt;210&gt; 5495

&lt;211&gt; 2414

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5495

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<211> 345

<212> PRT

<213> Homo sapiens

<400> 5496

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Tyr	Ile	Ala	Val	Glu	Ala	Ala	Glu	Gly	Arg	Asn	Lys	Asn	Glu	Val	Phe
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Asn	Val	Val	Ser	Gly	Gly	Phe	Pro	Ile	Ile	Arg	Asp	Gln	Ile	Phe	Arg
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Tyr	Val	His	Asp	Pro	Glu	Cys	Val	Ala	Thr	Thr	Gly	Asp	Ile	Thr	Val
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&lt;210&gt; 5497

&lt;211&gt; 1056

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5497

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<211> 426

<212> PRT

<213> Homo sapiens

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5501

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&lt;210&gt; 5502

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5502

Met	Ile	Leu	Gly	Lys	Arg	Leu	His	Leu	Asn	Phe	Arg	Tyr	Phe	Thr	Cys
1				5					10					15	
Glu	Ala	Gly	Thr	Lys	Pro	Cys	Ser	Ser	Glu	Val	Pro	Val	Gly	Ala	Gly
			20					25					30		
Gly	Ala	Ala	Leu	Gln	Val	Leu	Ala	His	Ala	Gln	Gln	Ala	Pro	His	Ser
			35				40					45			
Phe	Val	Thr	Thr	Lys	Gly	Thr	Val	Leu	Phe	Thr	Ala	Pro	Pro	Ala	Ser
	50				55				60						
Ala	Trp	Gln	Leu	Cys	Leu	Pro	Val	Leu	Tyr	Leu	Ile	Pro	Pro	Ala	Lys
65				70					75					80	
Leu	Ala	Arg	Gln	Gly	Pro	Ala	Leu	Lys	Glu	Ile	Ser	Leu	Pro	Asp	Pro
			85				90						95		
Trp	Thr	Trp	Lys	Trp	Arg	Leu	His	Val	Pro	Ala	Leu	Ala	Ala		
			100				105						110		

&lt;210&gt; 5503

&lt;211&gt; 1679

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5503

tgtctgggaa aagggaactc acaaggggtg agtaccacca aattaggaga taccatgagc  
 60



taacgccgtc tcagaattgc ataaatttgt ctacattttt caaagaagtt gggttatctg  
120  
atttaatcct cacaatagtc aagctaggaa ggtaagtgtg gaattattac cccatttgat  
180  
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240  
ttgggtccagt tcttccttct ccctgggtgct aaggtcagtg gatgttggct cccacaggc  
300  
cagaaagctg gagagaagcc cctgggtgca ggacccgggg aggaggaact gctccggggc  
360  
tcagcccctc atgctcagga cactcagagt gaggaactgc caccctcctg caccatctca  
420  
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480  
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540  
cagactcagg gggaagattg ttccctccca gtgggagagg tgaagatagg aaagaggctc  
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660  
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720  
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780  
gaccacaagc aggggcccc ggaagtgacc tgccaaatta ggaaaaagac acgaacccta  
840  
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900  
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960  
aagggggccg gctcactggg ggaggggtg agtggcgagg ggcccaccat tgaaacactc  
1020  
gaattgcaga gtgagcgctc agcggtagcc tgggtgtggg tccagaatcg ccgggccaag  
1080  
tggcgaaaaa tggagaaact gaatgggaaa gaaagcaagg acaatcctgc agcccctggc  
1140  
cctgccagca gtcaatgcag ctctgcagct gagatcctac ctgctgtgcc catggagcca  
1200  
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1260  
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1380  
cctgtccaca ccccccaact gatgccactg ctgatggatg ttgctggcag tgacagcagc  
1440  
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1560  
agagggttaa ctgagaggag cacagagtgg tacaggagat ggggatgaaa gggataaggg  
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1679

<210> 5504  
 <211> 392  
 <212> PRT  
 <213> Homo sapiens

<400> 5504

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Gln Lys Ala Gly Glu Lys Pro Leu Ala Ala Gly Pro Gly Glu Glu Glu
 1           5           10           15
Leu Leu Arg Gly Ser Ala Pro His Ala Gln Asp Thr Gln Ser Glu Glu
 20           25           30
Leu Pro Pro Ser Cys Thr Ile Ser Gly Glu Lys Lys Pro Pro Ala Val
 35           40           45
Ser Gly Glu Ala Thr Gly Ala Asp Ala Gly Arg Leu Cys Pro Pro Pro
 50           55           60
Arg Ser Arg Ala Pro His Lys Asp Arg Thr Leu Ala Arg Ser Arg Pro
 65           70           75           80
Gln Thr Gln Gly Glu Asp Cys Ser Leu Pro Val Gly Glu Val Lys Ile
 85           90           95
Gly Lys Arg Ser Tyr Ser Pro Ala Pro Gly Lys Gln Lys Lys Pro Asn
 100          105          110
Ala Met Gly Leu Ala Pro Thr Ser Pro Gly Ala Pro Asn Ser Ala
 115          120          125
Arg Ala Thr His Asn Pro Val Pro Cys Gly Ser Gly Arg Gly Pro Cys
 130          135          140
His Leu Ala Asn Leu Leu Ser Thr Leu Ala Gln Ser Asn Gln Asn Arg
 145          150          155          160
Asp His Lys Gln Gly Pro Pro Glu Val Thr Cys Gln Ile Arg Lys Lys
 165          170          175
Thr Arg Thr Leu Tyr Arg Ser Asp Gln Leu Glu Glu Leu Glu Lys Ile
 180          185          190
Phe Gln Glu Asp His Tyr Pro Asp Ser Asp Lys Arg Arg Glu Ile Ala
 195          200          205
Gln Thr Val Gly Val Thr Pro Gln Arg Ile Met Val Lys Gly Ala Gly
 210          215          220
Ser Leu Val Ala Gly Trp Ser Gly Gly Gly Pro Thr Ile Glu Thr Leu
 225          230          235          240
Glu Leu Gln Ser Glu Arg Ser Ala Val Ala Trp Val Trp Phe Gln Asn
 245          250          255
Arg Arg Ala Lys Trp Arg Lys Met Glu Lys Leu Asn Gly Lys Glu Ser
 260          265          270
Lys Asp Asn Pro Ala Ala Pro Gly Pro Ala Ser Ser Gln Cys Ser Ser
 275          280          285
Ala Ala Glu Ile Leu Pro Ala Val Pro Met Glu Pro Lys Pro Asp Pro
 290          295          300
Phe Pro Gln Glu Ser Pro Leu Asp Thr Phe Pro Glu Pro Pro Met Leu
 305          310          315          320
Leu Thr Ser Asp Gln Thr Leu Ala Pro Thr Gln Pro Ser Glu Gly Ala
 325          330          335
Gln Arg Val Val Thr Pro Pro Leu Phe Ser Pro Pro Pro Val Arg Arg
 340          345          350
Ala Asp Leu Pro Phe Pro Leu Gly Pro Val His Thr Pro Gln Leu Met
 355          360          365
Pro Leu Leu Met Asp Val Ala Gly Ser Asp Ser Ser His Lys Asp Gly

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370 375 380  
 Pro Cys Gly Ser Trp Gly Thr Arg  
 385 390

<210> 5505  
 <211> 1099  
 <212> DNA  
 <213> Homo sapiens

<400> 5505  
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 120  
 gagctgttca cgcacgtgcc cgcccgccag ctgctgctga actgccgcct ggtctgcagc  
 180  
 ctctggcggg acctcatcga cctcgtgacc ctctggaaac gcaagtgcct gcgagagggc  
 240  
 ttcatactg aggactggga ccagcccgtg gccgactgga agatcttcta cttcttacgg  
 300  
 agcctgcaca ggaacctcct gcacaacccg tgcgctgaag aggggttcga gttctggagc  
 360  
 ctggatgtga atggaggcga tgagtggaaag gtggaggatc tctctcgaga ccagaggaag  
 420  
 gaattcccca atgaccaggt caagaaatac ttcgttactt catattacac ctgcctcaag  
 480  
 tcccagggtg tggacctcaa ggccgaaggg tattgggagg agctactaga cacattccgg  
 540  
 ccggacatcg tggttaagga ctggtttgct gccagagccg actgtggctg cacctacaa  
 600  
 ctcaaagtgc agctcctgtc ggctgactac ttcgtgttgg cctccttcga gccagaccg  
 660  
 gcgaccatcc agcagaagag cgatgccaaag tggagggagg tctccacac attctccaac  
 720  
 taccgccccg gcgtccgcta catctggttt cagcacggcg gcgtggacac tcattactgg  
 780  
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 840  
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 900  
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 960  
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<210> 5506  
 <211> 280  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 5506

Lys Leu Gly Arg Pro Ser Gly Ser Cys Arg Gly Gly Arg Ala Gln Leu  
 1 5 10 15  
 Gln Glu Gly Val Gln Lys Pro Gln Ala Met Ala Val Gly Asn Ile Asn  
 20 25 30  
 Glu Leu Pro Glu Asn Ile Leu Leu Glu Leu Phe Thr His Val Pro Ala  
 35 40 45  
 Arg Gln Leu Leu Leu Asn Cys Arg Leu Val Cys Ser Leu Trp Arg Asp  
 50 55 60  
 Leu Ile Asp Leu Val Thr Leu Trp Lys Arg Lys Cys Leu Arg Glu Gly  
 65 70 75 80  
 Phe Ile Thr Glu Asp Trp Asp Gln Pro Val Ala Asp Trp Lys Ile Phe  
 85 90 95  
 Tyr Phe Leu Arg Ser Leu His Arg Asn Leu Leu His Asn Pro Cys Ala  
 100 105 110  
 Glu Glu Gly Phe Glu Phe Trp Ser Leu Asp Val Asn Gly Gly Asp Glu  
 115 120 125  
 Trp Lys Val Glu Asp Leu Ser Arg Asp Gln Arg Lys Glu Phe Pro Asn  
 130 135 140  
 Asp Gln Val Lys Lys Tyr Phe Val Thr Ser Tyr Tyr Thr Cys Leu Lys  
 145 150 155 160  
 Ser Gln Val Val Asp Leu Lys Ala Glu Gly Tyr Trp Glu Glu Leu Leu  
 165 170 175  
 Asp Thr Phe Arg Pro Asp Ile Val Val Lys Asp Trp Phe Ala Ala Arg  
 180 185 190  
 Ala Asp Cys Gly Cys Thr Tyr Gln Leu Lys Val Gln Leu Leu Ser Ala  
 195 200 205  
 Asp Tyr Phe Val Leu Ala Ser Phe Glu Pro Asp Pro Ala Thr Ile Gln  
 210 215 220  
 Gln Lys Ser Asp Ala Lys Trp Arg Glu Val Ser His Thr Phe Ser Asn  
 225 230 235 240  
 Tyr Pro Pro Gly Val Arg Tyr Ile Trp Phe Gln His Gly Gly Val Asp  
 245 250 255  
 Thr His Tyr Trp Ala Gly Trp Tyr Gly Pro Arg Val Thr Asn Ser Ser  
 260 265 270  
 Ile Thr Ile Gly Pro Pro Leu Pro  
 275 280

&lt;210&gt; 5507

&lt;211&gt; 1658

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5507

nttttagaaa gccaaaggaat tgagttaaatt ccaccagaga agatggctct tgatccttac  
 60  
 actgaactcc gaaaacagcc tcttcgtaag tatgtcaccc catcagactt tgatcaactc  
 120  
 aagcaatttc tcacctttga caaacaggtc cttcgattct atgcaatctg ggatgatata  
 180  
 gacagcatgt atggtgaatg tcggacctac atcattcatt actatcttat ggatgatagc  
 240  
 gtggaaattc gagaggtcca cgaacggaat gatgggagag atcctttccc actcctaagt  
 300

aaccgccagc gtgtgccc aa agttttgggtg gaaaatgcaa agaacttccc tcagtgtgtg  
360  
ctagaaatct ctgaccaaga agtgttggaa tggatatactg ctaaagactt cattgttggg  
420  
aagtcactca ctatccttgg gagaactttc ttcatttatg attgtgatcc atttactcga  
480  
cggattaca aagagaagtt tggaatcact gatttaccac gtattgatgt gagcaagcgg  
540  
gaaccacctc cagtaaaaca ggagttgcct ccttataacg gttttggact agtggaagat  
600  
tctgtcaga attgttttgc tctcattcca aaagctccaa aaaaagacgt tattaaaatg  
660  
ctggtgaatg ataacaaggt gcttcgttat ttggctgtac tggaatcccc catcccagaa  
720  
gacaaagacc gcagatttgt cttctcttac tttctagcta ccgacatgat cagtatcttt  
780  
gagcctcctg ttcgcaattc tggatcatt gggggcaagt accttggcag gactaaagtt  
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960  
ttgaaataca tggagagcaa cgctgccag tattcaccag aagcactcgc gtcaattcag  
1020  
aaccatgtcc gaaagcgaga agcgctgct ccagaagcag aaagcaagca aactgaaaag  
1080  
gatccaggcg tgcaggaatt ggaagcatta atagacacaa ttcagaagca actgaaagat  
1140  
cactcatgca aagacaacat tcgtgaggca tttcaaattt atgacaagga agcttcagga  
1200  
tatgtggaca gagacatgtt ctttaaaatc tgtgaatcgc ttaacgtccc agtggatgac  
1260  
tccttgggta aggagttaat caggatgtgc tctcatggag aaggcaaaat taactactat  
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aactttgttc gtgctttctc aaactgacct gctgatgaga aaatgcaaga caatttttga  
1380  
tactggaact atgctttgaa atacacctta cactcttcat agaggcattt acagggttcc  
1440  
tgaagtttta tttctgtttt ggctcttatt tcactcctac tgaagtcgaa actaaattgg  
1500  
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1560  
ttttgtgtgt caaattgact tggccacagg gggcccaa atttcctttc tttcttttta  
1620  
aaaaaataaa tttttttgga gatgggaaaa aaaaaaaa  
1658

&lt;210&gt; 5508

&lt;211&gt; 448

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5508

Xaa Leu Glu Ser Gln Gly Ile Glu Leu Asn Pro Pro Glu Lys Met Ala

1	5	10	15
Leu Asp Pro Tyr Thr Glu Leu Arg Lys Gln Pro Leu Arg Lys Tyr Val			
20	25	30	
Thr Pro Ser Asp Phe Asp Gln Leu Lys Gln Phe Leu Thr Phe Asp Lys			
35	40	45	
Gln Val Leu Arg Phe Tyr Ala Ile Trp Asp Asp Thr Asp Ser Met Tyr			
50	55	60	
Gly Glu Cys Arg Thr Tyr Ile Ile His Tyr Tyr Leu Met Asp Asp Thr			
65	70	75	80
Val Glu Ile Arg Glu Val His Glu Arg Asn Asp Gly Arg Asp Pro Phe			
85	90	95	
Pro Leu Leu Met Asn Arg Gln Arg Val Pro Lys Val Leu Val Glu Asn			
100	105	110	
Ala Lys Asn Phe Pro Gln Cys Val Leu Glu Ile Ser Asp Gln Glu Val			
115	120	125	
Leu Glu Trp Tyr Thr Ala Lys Asp Phe Ile Val Gly Lys Ser Leu Thr			
130	135	140	
Ile Leu Gly Arg Thr Phe Phe Ile Tyr Asp Cys Asp Pro Phe Thr Arg			
145	150	155	160
Arg Tyr Tyr Lys Glu Lys Phe Gly Ile Thr Asp Leu Pro Arg Ile Asp			
165	170	175	
Val Ser Lys Arg Glu Pro Pro Pro Val Lys Gln Glu Leu Pro Pro Tyr			
180	185	190	
Asn Gly Phe Gly Leu Val Glu Asp Ser Ala Gln Asn Cys Phe Ala Leu			
195	200	205	
Ile Pro Lys Ala Pro Lys Lys Asp Val Ile Lys Met Leu Val Asn Asp			
210	215	220	
Asn Lys Val Leu Arg Tyr Leu Ala Val Leu Glu Ser Pro Ile Pro Glu			
225	230	235	240
Asp Lys Asp Arg Arg Phe Val Phe Ser Tyr Phe Leu Ala Thr Asp Met			
245	250	255	
Ile Ser Ile Phe Glu Pro Pro Val Arg Asn Ser Gly Ile Ile Gly Gly			
260	265	270	
Lys Tyr Leu Gly Arg Thr Lys Val Val Lys Pro Tyr Ser Thr Val Asp			
275	280	285	
Asn Pro Val Tyr Tyr Gly Pro Ser Asp Phe Phe Ile Gly Ala Val Ile			
290	295	300	
Glu Val Phe Gly His Arg Phe Ile Ile Leu Asp Thr Asp Glu Tyr Val			
305	310	315	320
Leu Lys Tyr Met Glu Ser Asn Ala Ala Gln Tyr Ser Pro Glu Ala Leu			
325	330	335	
Ala Ser Ile Gln Asn His Val Arg Lys Arg Glu Ala Pro Ala Pro Glu			
340	345	350	
Ala Glu Ser Lys Gln Thr Glu Lys Asp Pro Gly Val Gln Glu Leu Glu			
355	360	365	
Ala Leu Ile Asp Thr Ile Gln Lys Gln Leu Lys Asp His Ser Cys Lys			
370	375	380	
Asp Asn Ile Arg Glu Ala Phe Gln Ile Tyr Asp Lys Glu Ala Ser Gly			
385	390	395	400
Tyr Val Asp Arg Asp Met Phe Phe Lys Ile Cys Glu Ser Leu Asn Val			
405	410	415	
Pro Val Asp Asp Ser Leu Val Lys Glu Leu Ile Arg Met Cys Ser His			
420	425	430	
Gly Glu Gly Lys Ile Asn Tyr Tyr Asn Phe Val Arg Ala Phe Ser Asn			

435

440

445

<210> 5509  
 <211> 818  
 <212> DNA  
 <213> Homo sapiens

<400> 5509  
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 120  
 ctatgtgaga ggaagtaagt atacacagcg taagaggtgt gataaccaag tcatagaaga  
 180  
 aatgtttgga gaacatggaa tcatgtgaac ttattatgtg gtaagtacag ataccagggg  
 240  
 ctgtcagtct caccatcctt ttctacacat gtggatgctt caggactcca gcctttgagg  
 300  
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 360  
 attccaggtc ataattctgaa taagaaaacg cctcctggag taaagccacc tgaaagccat  
 420  
 gtgtgtggag aggtcggcgt gggctatcca tccactgaaa ggcacatcag agatcgctt  
 480  
 ggacgcaaac cctgtgaata tcaggaatgt agacagaagg catatacatg taagccatgt  
 540  
 gggaatgcct ttcgttttca ccactccttt cacatacacg aaaggcctca cagtggagaa  
 600  
 aacctctatg aatgttagga atttcagaaa acattcactt ccccccaaa ccttcaaaga  
 660  
 tgtgaaaatg catagtggag atggacctta caaatgcaag gtgggtagga aaacctttga  
 720  
 ctctcccagt tcatttcgaa tacatggaag atctcattct ggagagaaac ccaatgtgtg  
 780  
 taggcactgt gggagcacct acaatcattt cagttttg  
 818

<210> 5510  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 5510  
 Met Trp Leu Ser Thr Ser Pro Tyr Arg Lys Gly Ser Gln Cys Gly Glu  
 1 5 10 15  
 Ala Phe Ser Gln Ile Pro Gly His Asn Leu Asn Lys Lys Thr Pro Pro  
 20 25 30  
 Gly Val Lys Pro Pro Glu Ser His Val Cys Gly Glu Val Gly Val Gly  
 35 40 45  
 Tyr Pro Ser Thr Glu Arg His Ile Arg Asp Arg Leu Gly Arg Lys Pro  
 50 55 60  
 Cys Glu Tyr Gln Glu Cys Arg Gln Lys Ala Tyr Thr Cys Lys Pro Cys  
 65 70 75 80  
 Gly Asn Ala Phe Arg Phe His His Ser Phe His Ile His Glu Arg Pro

90

95

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<400> 5511
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120
ctctgctgag ttgctgagag tctgtgttcc tctctccact tataggatgg gtcctcatct
180
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240
atgctgaatt cctctatggc agagatggga ggagaggctc cacgctgggc ctctcagcc
300
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360
ggccccggcg ccggccgcn
379
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<400> 5512
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Ile Glu Glu Phe Ser Ile Ile Pro Glu Ala Pro Met Arg Ser Ser Gln
          20          25          30
Val Ser Ala Leu Gly Leu Glu Ala Gln Glu Asp Glu Asp Pro Ser Tyr
          35          40          45
Lys Trp Arg Glu Glu His Arg Leu Ser Ala Thr Gln Gln Ser Glu Leu
          50          55          60
Arg Asp Val Cys Asp Tyr Ala Ile Glu Thr Met Pro Ser Phe Pro Lys
65          70          75          80
Glu Gly Ser Ala Asp Val Glu Pro Asn Gln Glu Ser Leu Val Ala Glu
          85          90          95
Ala Cys Asp Thr Pro
          100

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60
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120  
agactcgggg agccattgac catcgtctct gaggatggag actggtggac ggtgctgtct  
180  
gaagtctcag gcagagagta taacatcccc agcgtccacg tggccaaagt ctcccatggg  
240  
tggtgtatg agggcctgag cagggagaaa gcagaggacc tgctgttgtt acctgggaac  
300  
cctggagggg ccttcctcat ccgggagagc cagaccagga gaggctctta ctctctgtca  
360  
gtccgcctca gccgcctgc atcctgggac cggatcagac actacaggat cactgcctt  
420  
gacaatggct ggctgtacat ctcaccgcgc ctcaccttcc cctcactcca ggccctgggtg  
480  
gaccattact ctgagctggc ggatgacatc tgctgcctac tcaaggagcc ctgtgtcctg  
540  
cagagggctg gcccgctccc tggcaaggat atacccttac ctgtgactgt gcagaggaca  
600  
ccactcaact ggaaagagct ggacagctcc ctctgtttt ctgaagctgc cacaggggag  
660  
gagtctcttc tcagtggagg tctccgggag tccctcagct tctacatcag cctgaatgac  
720  
gaggctgtct ctttgatga tgcctaggcc caaaggagag gccaaaaggg aaaccaaggc  
780  
tgcacaccta gaacccaat tcagcctcct gggcacccca gaggcaaggc tgtgcac  
837

&lt;210&gt; 5514

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5514

Xaa	Ser	Leu	Ser	Ser	Ser	Val	Gln	Gly	Gln	Gly	Pro	Val	Thr	Met	Glu
1				5				10						15	
Ala	Glu	Arg	Ser	Lys	Ala	Thr	Ala	Ala	Ala	Leu	Gly	Ser	Phe	Pro	Ala
			20				25						30		
Gly	Gly	Pro	Ala	Glu	Leu	Ser	Leu	Arg	Leu	Gly	Glu	Pro	Leu	Thr	Ile
			35				40						45		
Val	Ser	Glu	Asp	Gly	Asp	Trp	Trp	Thr	Val	Leu	Ser	Glu	Val	Ser	Gly
			50				55					60			
Arg	Glu	Tyr	Asn	Ile	Pro	Ser	Val	His	Val	Ala	Lys	Val	Ser	His	Gly
65					70					75					80
Trp	Leu	Tyr	Glu	Gly	Leu	Ser	Arg	Glu	Lys	Ala	Glu	Asp	Leu	Leu	Leu
				85					90					95	
Leu	Pro	Gly	Asn	Pro	Gly	Gly	Ala	Phe	Leu	Ile	Arg	Glu	Ser	Gln	Thr
			100					105						110	
Arg	Arg	Gly	Ser	Tyr	Ser	Leu	Ser	Val	Arg	Leu	Ser	Arg	Pro	Ala	Ser
			115				120					125			
Trp	Asp	Arg	Ile	Arg	His	Tyr	Arg	Ile	His	Cys	Leu	Asp	Asn	Gly	Trp
			130				135					140			
Leu	Tyr	Ile	Ser	Pro	Arg	Leu	Thr	Phe	Pro	Ser	Leu	Gln	Ala	Leu	Val
145					150					155					160
Asp	His	Tyr	Ser	Glu	Leu	Ala	Asp	Asp	Ile	Cys	Cys	Leu	Leu	Lys	Glu

```

          165          170          175
Pro Cys Val Leu Gln Arg Ala Gly Pro Leu Pro Gly Lys Asp Ile Pro
          180          185          190
Leu Pro Val Thr Val Gln Arg Thr Pro Leu Asn Trp Lys Glu Leu Asp
          195          200          205
Ser Ser Leu Leu Phe Ser Glu Ala Ala Thr Gly Glu Glu Ser Leu Leu
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<210> 5515  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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Lys Lys Met Gln Glu Arg Met Ser Ala Gln Leu Ala Ala Glu Ser
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Arg Gln Lys Lys Leu Glu Met Glu Lys Leu Gln Leu Gln Ala Leu Glu
35          40          45
Gln Glu His Lys Lys Leu Ala Ala Arg Leu Glu Glu Glu Arg Gly Lys
50          55          60
Asn Lys Gln Val Val Leu Met Leu Val Lys Glu Cys Lys Gln Leu Ser
65          70          75          80
Ser Lys Val Ile Glu Glu Ala Gln Lys Leu Glu Asp Val Met Ala Lys
85          90          95
Leu Ala Ser Ser Leu Cys His Gln His Leu Leu His Ser Leu Ser Gly
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Val Pro Gly Thr Gly His Ile Asp

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115

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
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85

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 <213> Homo sapiens

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 Pro Leu Met His Ala Ala Tyr Lys Gly Lys Leu Asp Met Cys Lys Leu  
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 Leu Leu Arg His Gly Ala Asp Val Asn Cys His Gln His Glu His Gly  
 65 70 75 80  
 Tyr Thr Ala Leu Met Phe Ala Ala Leu Ser Gly Asn Lys Asp Ile Thr  
 85 90 95  
 Trp Val Met Leu Glu Ala Gly Ala Glu Thr Asp Val Val Asn Ser Val  
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 Gly Arg Thr Ala Ala Gln Met Ala Ala Phe Val Gly Gln His Asp Cys  
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Ala Leu Asn Lys Cys Tyr Arg Val Met Asp Leu Ile Cys Glu Lys Cys						
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&lt;211&gt; 6190

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5523

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&lt;210&gt; 5524

&lt;211&gt; 1193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5524

Met	Pro	Arg	Gly	Glu	Ala	Pro	Gly	Pro	Gly	Arg	Arg	Gly	Ala	Lys	Asp
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Glu	Ala	Leu	Gly	Glu	Glu	Ser	Gly	Glu	Arg	Trp	Ser	Pro	Glu	Phe	His
			20					25					30		
Leu	Gln	Arg	Lys	Leu	Ala	Asp	Ser	Ser	His	Ser	Glu	Gln	Gln	Asp	Arg
			35				40					45			
Asn	Arg	Val	Ser	Glu	Glu	Leu	Ile	Met	Val	Val	Gln	Glu	Met	Lys	Lys
			50			55					60				
Tyr	Phe	Pro	Ser	Glu	Arg	Arg	Asn	Lys	Pro	Ser	Thr	Leu	Asp	Ala	Leu
65					70				75					80	
Asn	Tyr	Ala	Leu	Arg	Cys	Val	His	Ser	Val	Gln	Ala	Asn	Ser	Glu	Phe

4702

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Tyr Thr Glu Pro Cys Glu Asp Leu Arg Asn Asp Glu His Ser Pro Ser
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Tyr Gln Gln Ile Asn Cys Ile Asp Ser Val Ile Arg Tyr Leu Lys Ser
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Thr Ser Ser Ser Ser Glu Glu Asp Lys Gln Asn His Lys Ala Asp Asp
565          570          575
Val Gln Ala Leu Gln Gly Asn Lys Asn Ala Pro Gln Lys Met Pro Thr
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595          600          605
Thr Ala Met Leu Ser Leu Gly Ser Gly Ile Ser Gln Cys Gly Tyr Ser
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Ser Glu Glu Phe Lys His Val Gly Leu Thr Ala Ala Val Leu Ser Ala
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His Thr Gln Lys Glu Glu Gln Asn Tyr Val Asp Lys Phe Arg Glu Lys
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Lys Ala Lys Tyr Ser Tyr Phe Gln Gly Asp Ser Thr Ser Lys Gln Thr
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Glu Pro Pro Asp Ser Ser Ser Ser Asn Thr Gly Ser Gly Pro Arg Arg
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Gln Ala Pro Tyr Leu Val Pro Ala Phe Pro Leu Pro Ala Ala Thr Ser
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Pro Gly Arg Glu Tyr Ala Ala Pro Gly Thr Ala Pro Glu Gly Leu His
805          810          815
Gly Pro Pro Leu Ser Glu Gly Leu Gln Pro Tyr Pro Ala Phe Pro Phe
820          825          830
Pro Tyr Leu Asp Thr Phe Met Thr Val Phe Leu Pro Asp Pro Pro Val
835          840          845
Cys Pro Leu Leu Ser Pro Ser Phe Leu Pro Cys Pro Phe Leu Gly Ala
850          855          860
Thr Ala Ser Ser Ala Ile Ser Pro Ser Met Ser Ser Ala Met Ser Pro
865          870          875          880
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885          890          895
Lys Trp Glu Ala Gln Ser Glu Gly His Pro Phe Ile Thr Ser Arg Ser
900          905          910
Ser Ser Pro Leu Gln Leu Asn Leu Leu Gln Glu Glu Met Pro Arg Pro
915          920          925
Ser Glu Ser Pro Asp Gln Met Arg Arg Asn Thr Cys Pro Gln Thr Glu
930          935          940

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Tyr Gln Cys Val Thr Gly Asn Asn Gly Ser Glu Ser Ser Pro Ala Thr  
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 980 985 990  
 Ser His Pro Thr Ala Ser Ala Leu Ser Thr Gly Ser Pro Pro Met Lys  
 995 1000 1005  
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 Pro Pro Ser Glu Ser Pro Ser Arg Thr Gly Ser Ala Ala Ser Gly Ser  
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 1090 1095 1100  
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 1125 1130 1135  
 Pro Gln Phe Ser His Gly Gln Lys Glu Glu Leu Ala Lys Val Tyr Asn  
 1140 1145 1150  
 Trp Ile Gln Ser Gln Thr Val Thr Gln Glu Ile Asp Ile Gln Ala Cys  
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&lt;210&gt; 5525

&lt;211&gt; 761

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5525

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 600  
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<210> 5526

<211> 102

<212> PRT

<213> Homo sapiens

<400> 5526

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			20				25					30			
Asn	Phe	Thr	Leu	Leu	Ala	Ser	Leu	Gly	Leu	Ala	Ser	Ser	Lys	Thr	His
		35				40					45				
Glu	Ile	Thr	Gln	Leu	Glu	Ser	Trp	Glu	Glu	Pro	Phe	Met	Pro	Ala	Trp
	50				55					60					
Glu	Val	Val	Thr	Ser	Ala	Ile	Pro	Arg	Glu	Thr	Leu	Arg	Met	Ala	Phe
65				70				75						80	
Met	Arg	Glu	Leu	Ala	Ile	Glu	His	His	Ser	Ser	Lys	Tyr	Ala	His	Trp
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<210> 5527

<211> 728

<212> DNA

<213> Homo sapiens

<400> 5527

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<210> 5528  
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 <212> PRT  
 <213> Homo sapiens

<400> 5528  
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 Val Thr Gly Leu Lys Leu Ser Gln Asp Leu Asp Asp Leu Ala Ile Leu  
 35 40 45  
 Tyr Leu Ala Thr Val Gln Ala Ile Ala Leu Gly Thr Arg Phe Ile Ile  
 50 55 60  
 Glu Ala Met Glu Ala Ala Gly His Ser Ile Ser Thr Leu Phe Leu Cys  
 65 70 75 80  
 Gly Gly Leu Ser Lys Asn Pro Leu Phe Val Gln Met His Ala Asp Ile  
 85 90 95  
 Thr Gly Met Pro Val Val Leu Ser Gln Glu Val Glu Ser Val Leu Val  
 100 105 110  
 Gly Ala Ala Val Leu Gly Ala Cys Ala Ser Gly Asp Phe Ala Ser Val  
 115 120 125  
 Gln Glu Ala Met Ala Lys Met Ser Lys Val Gly Lys Val Val Phe Pro  
 130 135 140  
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<210> 5529  
 <211> 2602  
 <212> DNA  
 <213> Homo sapiens

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 120  
 actcgagtcc agcggcctat cgtcaggctt ttgagttgcc caggaactgt ggccaaagac  
 180



cttaggagag acgagcagcc ttcagggagc gtggagacag gttttgaaga caagattccc  
240  
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360  
cctattaata atcatttctt ctatgaaagc tttggtctct atgctgtcgt agaattttgc  
420  
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480  
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540  
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660  
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720  
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1020  
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1080  
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1260  
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1320  
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1800

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 1980  
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 2340  
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 2602

&lt;210&gt; 5530

&lt;211&gt; 603

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5530

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Phe	Phe	Phe	Leu	Ala	Met	Ala	Val	Pro	Gly	Val	Gly	Leu	Leu	Thr	Arg
			20					25					30		
Leu	Asn	Leu	Cys	Ala	Arg	Arg	Arg	Thr	Arg	Val	Gln	Arg	Pro	Ile	Val
	35					40					45				
Arg	Leu	Leu	Ser	Cys	Pro	Gly	Thr	Val	Ala	Lys	Asp	Leu	Arg	Arg	Asp
	50					55					60				
Glu	Gln	Pro	Ser	Gly	Ser	Val	Glu	Thr	Gly	Phe	Glu	Asp	Lys	Ile	Pro
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Lys	Arg	Arg	Phe	Ser	Glu	Met	Gln	Asn	Glu	Arg	Arg	Glu	Gln	Ala	Gln
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Arg	Thr	Val	Leu	Ile	His	Cys	Pro	Glu	Lys	Ile	Ser	Glu	Asn	Lys	Phe
			100					105					110		
Leu	Lys	Tyr	Leu	Ser	Gln	Phe	Gly	Pro	Ile	Asn	Asn	His	Phe	Phe	Tyr
	115						120					125			
Glu	Ser	Phe	Gly	Leu	Tyr	Ala	Val	Val	Glu	Phe	Cys	Gln	Lys	Glu	Ser
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Ile	Gly	Ser	Leu	Gln	Asn	Gly	Thr	His	Thr	Pro	Ser	Thr	Ala	Met	Glu

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Thr	Ala	Ile	Pro	Phe	Arg	Ser	Arg	Phe	Phe	Asn	Leu	Lys	Leu	Lys
				165					170					175
Gln	Thr	Ser	Glu	Arg	Ser	Arg	Val	Arg	Ser	Ser	Asn	Gln	Leu	Pro
			180					185					190	
Ser	Asn	Lys	Gln	Leu	Phe	Glu	Leu	Leu	Cys	Tyr	Ala	Glu	Ser	Ile
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Asp	Gln	Leu	Asn	Thr	Leu	Leu	Lys	Glu	Phe	Gln	Leu	Thr	Glu	Glu
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Thr	Lys	Leu	Arg	Tyr	Leu	Thr	Cys	Ser	Leu	Ile	Glu	Asp	Met	Ala
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Ala	Tyr	Phe	Pro	Asp	Cys	Ile	Val	Arg	Pro	Phe	Gly	Ser	Ser	Val
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Thr	Phe	Gly	Lys	Leu	Gly	Cys	Asp	Leu	Asp	Met	Phe	Leu	Asp	Leu
			260					265					270	
Glu	Thr	Arg	Asn	Leu	Ser	Ala	His	Lys	Ile	Ser	Gly	Asn	Phe	Leu
		275					280					285		
Glu	Phe	Gln	Val	Lys	Asn	Val	Pro	Ser	Glu	Arg	Ile	Ala	Thr	Gln
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Ile	Leu	Ser	Val	Leu	Gly	Glu	Cys	Leu	Asp	His	Phe	Gly	Pro	Gly
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Val	Gly	Val	Gln	Lys	Ile	Leu	Asn	Ala	Arg	Cys	Pro	Leu	Val	Arg
			325						330					335
Ser	His	Gln	Ala	Ser	Gly	Phe	Gln	Cys	Asp	Leu	Thr	Thr	Asn	Asn
		340					345						350	
Ile	Ala	Leu	Thr	Ser	Ser	Glu	Leu	Leu	Tyr	Ile	Tyr	Gly	Ala	Leu
	355					360					365			
Ser	Arg	Val	Arg	Ala	Leu	Val	Phe	Ser	Val	Arg	Cys	Trp	Ala	Arg
	370				375						380			
His	Ser	Leu	Thr	Ser	Ser	Ile	Pro	Gly	Ala	Trp	Ile	Thr	Asn	Phe
385				390					395					400
Leu	Thr	Met	Met	Val	Ile	Phe	Phe	Leu	Gln	Arg	Arg	Ser	Pro	Pro
			405						410					415
Leu	Pro	Thr	Leu	Asp	Ser	Leu	Lys	Thr	Leu	Ala	Asp	Ala	Glu	Asp
		420					425					430		
Cys	Val	Ile	Glu	Gly	Asn	Asn	Cys	Thr	Phe	Val	Arg	Asp	Leu	Ser
	435					440					445			
Ile	Lys	Pro	Ser	Gln	Asn	Thr	Glu	Thr	Leu	Glu	Leu	Leu	Leu	Lys
	450				455					460				
Phe	Phe	Glu	Tyr	Phe	Gly	Asn	Phe	Ala	Phe	Asp	Lys	Asn	Ser	Ile
465					470				475					480
Ile	Arg	Gln	Gly	Arg	Glu	Gln	Asn	Lys	Pro	Asp	Ser	Ser	Pro	Leu
			485					490						495
Ile	Gln	Asn	Pro	Phe	Glu	Thr	Ser	Leu	Asn	Ile	Ser	Lys	Asn	Val
		500					505						510	
Gln	Ser	Gln	Leu	Gln	Lys	Phe	Val	Asp	Leu	Ala	Arg	Glu	Ser	Ala
		515					520					525		
Ile	Leu	Gln	Gln	Glu	Asp	Thr	Asp	Arg	Pro	Ser	Ile	Ser	Ser	Asn
	530					535				540				
Pro	Trp	Gly	Leu	Val	Ser	Leu	Leu	Leu	Pro	Ser	Ala	Pro	Asn	Arg
545					550				555					560
Ser	Phe	Thr	Lys	Lys	Lys	Ser	Asn	Lys	Phe	Ala	Ile	Glu	Thr	Val
			565					570						575
Asn	Leu	Leu	Glu	Ser	Leu	Lys	Gly	Asn	Arg	Thr	Glu	Asn	Phe	Thr

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 595                      600

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 <212> DNA  
 <213> Homo sapiens

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 300  
 gcagaggatt ccaccgcagc catgagcagt gactcggccg ccgggtcctc ggccaagggtg  
 360  
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 <212> PRT  
 <213> Homo sapiens

<400> 5532

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Tyr Ser Ala Gly Arg Gly Ile Tyr Ser Arg Tyr His Glu Gly Lys Gly
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Lys Gln Gln Glu Lys Gly Tyr Glu Leu Val Pro Asn Leu Glu Ile Pro
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Ile Glu Asp Gly Lys Ile His Thr Val Glu His Met Ile Ser Pro Ile
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&lt;210&gt; 5533

&lt;211&gt; 505

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5533

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 Ser Leu Thr Glu Lys Thr Pro Thr Gly Thr Phe Ser Arg Glu Ala Leu  
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&lt;210&gt; 5536

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5536

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Glu Leu Leu Ala Gly Gln Lys Lys Ser Ser Pro Phe Trp Thr Phe Glu
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Tyr Tyr Gln Thr Phe Phe Asp Val Asp Thr Tyr Gln Val Phe Asp Arg
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Val Ser Ile Ala Ala Thr Ile Ile Tyr Ala Tyr Ala Trp Leu Val Pro
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&lt;210&gt; 5537

&lt;211&gt; 2881

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5537

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&lt;210&gt; 5538

&lt;211&gt; 352

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5538

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			20					25					30		
Ala	Glu	Leu	Arg	His	Leu	Asp	Thr	Gln	Val	Gln	Arg	Cys	Glu	Asp	Ile
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Asn Pro Val Val Met Lys Asp Gly Lys Trp Val Val Gln Lys Tyr Ile		95
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Glu Arg Pro Leu Leu Ile Phe Gly Thr Lys Phe Asp Leu Arg Gln Trp		110
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Phe Leu Val Thr Asp Trp Asn Pro Leu Thr Val Trp Phe Tyr Arg Asp		125
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Ser Cys His Arg His Pro Leu Leu Pro Pro Asp Asn Met Trp Ser Ser		175
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Gln Arg Phe Gln Ala His Leu Gln Glu Met Gly Ala Pro Asn Ala Trp		190
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Gln Thr Ser Gln Asp Thr Val Gln Cys Arg Lys Ala Ser Phe Glu Leu		220
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&lt;210&gt; 5539

&lt;211&gt; 1887

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5539

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<213> Homo sapiens

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&lt;210&gt; 5543

&lt;211&gt; 4021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5543

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&lt;210&gt; 5544

&lt;211&gt; 1141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5544

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Asp Glu Glu Gly Glu Ser	Gly Ala Glu Glu Gly	Pro Asp Leu Glu Glu			
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Pro Gly Ala Gly Tyr Lys	Lys Leu Phe Ser Asp	Ala Gln Pro Leu Gln			
	645		650		655
Pro Leu Gln Val Tyr Gln	Ala Pro Leu Ser Leu Ala	Thr Val Pro His			
	660		665		670
Gln Ala Leu Gly Arg Thr	Gln Ser Pro Ala Ala	Pro Gly Gly Met			
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Lys Ser Pro Pro Asp Gln	Pro Val Lys His Leu Phe	Thr Thr Gly Val			
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Val Tyr Asp Thr Phe Met	Leu Lys His Gln Cys	Met Cys Gly Asn Thr			
705		710		715	720
His Val His Pro Glu His	Ala Gly Arg Ile Gln	Ser Ile Trp Ser Arg			
	725		730		735
Leu Gln Glu Thr Gly Leu	Leu Ser Lys Cys Glu Arg	Ile Arg Gly Arg			
	740		745		750
Lys Ala Thr Leu Asp Glu	Ile Gln Thr Val His	Ser Glu Tyr His Thr			
	755		760		765
Leu Leu Tyr Gly Thr Ser	Pro Leu Asn Arg Gln	Lys Leu Asp Ser Lys			
	770		775		780
Lys Leu Leu Gly Pro Ile	Ser Gln Lys Met Tyr	Ala Val Leu Pro Cys			
785		790		795	800
Gly Gly Ile Gly Val Asp	Ser Asp Thr Val Trp	Asn Glu Met His Ser			
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Ser Ser Ala Val Arg Met	Ala Val Gly Cys Leu Leu	Glu Leu Ala Phe			
	820		825		830
Lys Val Ala Ala Gly Glu	Leu Lys Asn Gly Phe	Ala Ile Ile Arg Pro			
	835		840		845
Pro Gly His His Ala Glu	Glu Ser Thr Ala Met	Gly Phe Cys Phe Phe			
	850		855		860
Asn Ser Val Ala Ile Thr	Ala Lys Leu Leu Gln	Gln Lys Leu Asn Val			
865		870		875	880
Gly Lys Val Leu Ile Val	Asp Trp Asp Ile His	His Gly Asn Gly Thr			

				885					890				895				
Gln	Gln	Ala	Phe	Tyr	Asn	Asp	Pro	Ser	Val	Leu	Tyr	Ile	Ser	Leu	His		
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				965					970					975			
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			980				985					990					
Gly	Gly	Tyr	Ser	Val	Thr	Ala	Arg	Cys	Phe	Gly	His	Leu	Thr	Arg	Gln		
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His	Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Ser	Ala		
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Lys	Pro	Asn	Ile	Asn	Ala	Val	Ala	Thr	Leu	Glu	Lys	Val	Ile	Glu	Ile		
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&lt;210&gt; 5545

&lt;211&gt; 1932

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5545

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&lt;210&gt; 5546



<211> 183  
 <212> PRT  
 <213> Homo sapiens

<400> 5546

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			20					25					30		
Ala	Ile	Ile	Leu	Ala	Gln	Lys	Asn	Met	Leu	Asp	Arg	Phe	Glu	Lys	Thr
			35					40					45		
Asn	Glu	Met	Leu	Leu	Asn	Phe	Asn	Asn	Leu	Ser	Ser	Ala	Arg	Leu	Gln
	50					55					60				
Gln	Met	Ser	Glu	Arg	Phe	Leu	His	His	Thr	Arg	Thr	Leu	Val	Glu	Met
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Lys	Arg	Asp	Leu	Asp	Ser	Ile	Phe	Arg	Arg	Ile	Arg	Thr	Leu	Lys	Gly
			85						90					95	
Lys	Leu	Ala	Arg	Gln	His	Pro	Glu	Ala	Phe	Ser	His	Ile	Pro	Glu	Ala
			100					105					110		
Ser	Phe	Leu	Glu	Glu	Glu	Asp	Glu	Asp	Pro	Ile	Pro	Pro	Ser	Thr	Thr
			115					120					125		
Thr	Thr	Ile	Ala	Thr	Ser	Glu	Gln	Ser	Thr	Gly	Ser	Cys	Asp	Thr	Ser
			130					135					140		
Pro	Asp	Thr	Val	Ser	Pro	Ser	Leu	Ser	Pro	Gly	Phe	Glu	Asp	Leu	Ser
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His	Val	Gln	Pro	Gly	Ser	Pro	Ala	Ile	Asn	Gly	Arg	Ser	Gln	Thr	Asp
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<210> 5547  
 <211> 1391  
 <212> DNA  
 <213> Homo sapiens

<400> 5547

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 <211> 167  
 <212> PRT  
 <213> Homo sapiens

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 Leu Gln Thr Asn Val Arg Ser Gln Ile Leu Arg Leu Arg His Thr Ala  
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 Phe Val Ile Pro Lys Lys Asn Val Pro Thr Ser Lys Arg Glu Thr Tyr  
 50 55 60  
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 Arg His Leu Ala Asn Met Met Gly Glu Asp Pro Glu Thr Phe Thr Gln  
 85 90 95  
 Glu Asp Ile Asp Arg Ala Ile Ala Tyr Leu Phe Pro Ser Gly Leu Phe  
 100 105 110  
 Glu Lys Arg Ala Arg Pro Val Met Lys His Pro Glu Gln Ile Phe Pro  
 115 120 125  
 Arg Gln Arg Ala Ile Gln Trp Gly Glu Asp Gly Arg Pro Phe His Tyr

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Leu Phe Tyr Thr Gly Lys Gln Ser Tyr Tyr Ser	Leu Met His Asp Val	
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Xaa Met Glu Cys Tyr Ser Ile		160
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5550

&lt;211&gt; 242

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5550

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			20					25					30		
Arg	Trp	Ser	Arg	Tyr	Ser	Pro	Glu	Phe	Lys	Asp	Pro	Leu	Ile	Asp	Lys
		35				40						45			
Glu	Tyr	Tyr	Arg	Lys	Pro	Val	Glu	Glu	Leu	Thr	Glu	Glu	Glu	Lys	Tyr
	50				55					60					
Val	Arg	Glu	Leu	Lys	Lys	Thr	Gln	Leu	Ile	Lys	Ala	Ala	Pro	Ala	Gly
65					70					75					80
Lys	Thr	Ser	Ser	Val	Phe	Glu	Asp	Pro	Val	Ile	Ser	Lys	Phe	Thr	Asn
				85				90						95	
Met	Met	Met	Ile	Gly	Gly	Asn	Lys	Val	Leu	Ala	Arg	Ser	Leu	Met	Ile
			100					105					110		
Gln	Thr	Leu	Glu	Ala	Val	Lys	Arg	Lys	Gln	Phe	Glu	Lys	Tyr	His	Ala
	115					120						125			
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	130				135						140				
Phe	His	Gln	Ala	Leu	Lys	Asn	Cys	Glu	Pro	Met	Ile	Gly	Leu	Val	Pro
145					150					155					160
Ile	Leu	Lys	Gly	Gly	Arg	Phe	Tyr	Gln	Val	Pro	Val	Pro	Leu	Pro	Asp
			165					170					175		
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 <212> PRT  
 <213> Homo sapiens

<400> 5552  
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 Tyr Leu Leu Asp Pro Tyr Val Asn Leu Ala Pro Gly Cys Arg Ser Leu  
 35 40 45  
 Phe Ser Val Ile Val Arg Val Val Gly Asp Leu Met Leu Arg Ile Gln  
 50 55 60  
 Arg Ile Gln Asp Phe Thr Pro Lys Leu Leu Leu Val Arg Lys Arg Leu  
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 <211> 274  
 <212> DNA  
 <213> Homo sapiens

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274

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<211> 90  
<212> PRT  
<213> Homo sapiens

<400> 5554  
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35 40 45  
Gly Pro Ala Thr Ala Pro Ala Val Val Leu Ser His Tyr Arg Gly Cys  
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<211> 414  
<212> DNA  
<213> Homo sapiens

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<212> PRT  
<213> Homo sapiens

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1080

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&lt;210&gt; 5558

&lt;211&gt; 360

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5558

Met	Asp	Asp	Phe	Thr	Pro	Pro	Gly	Ser	Gly	Ala	Cys	Lys	Phe	Ile	Gly
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Ser	Val	Pro	Arg	Glu	Pro	Ile	Asp	Arg	Lys	Arg	Leu	Lys	Lys	Asp	Val
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Glu	Pro	Ser	Cys	Ser	Gly	Ser	Ser	Leu	Gly	Pro	Asp	Lys	Gly	Leu	Ala
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Gln	Ser	Pro	Pro	Ser	Ser	Ser	Leu	Thr	Ala	Thr	Arg	Gln	Lys	Pro	Ser
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Glu	Ala	Val	Gln	Ser	Glu	His	Ser	Asp	Ala	Ser	Pro	Met	Ser	Ile	Asn
		100					105						110		
Glu	Val	Ile	Leu	Ser	Ala	Ser	Gly	Ala	Cys	Lys	Leu	Ile	Asp	Ser	Leu
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His	Ser	Tyr	Cys	Phe	Ser	Ser	Arg	Gln	Asn	Lys	Ser	Gln	Val	Cys	Cys

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Gln Arg Val Ser Arg	Ser Asp Ser Gln Val Arg	Lys Leu Gln Glu Lys		
	165	170	175	
Leu Asp Glu Leu Arg Arg	Val Ser Val Pro Tyr Pro	Ser Ser Leu Leu		
	180	185	190	
Ser Pro Ser Arg Glu Pro	Pro Lys Met Asn Pro	Val Val Glu Pro Leu		
	195	200	205	
Ser Trp Met Leu Gly Thr	Trp Leu Ser Asp Pro	Pro Gly Ala Gly Thr		
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Tyr Pro Thr Leu Gln Pro	Phe Gln Tyr Leu Glu	Val His Ile Ser		
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His Val Gly Gln Pro Met	Leu Asn Phe Ser Phe	Asn Ser Phe His Pro		
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Asp Thr Arg Lys Pro Met	His Arg Glu Cys Gly	Phe Ile Arg Leu Lys		
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Pro Asp Thr Asn Lys Val	Ala Phe Val Ser Ala	Gln Asn Thr Gly Val		
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Val Glu Val Glu Glu Gly	Glu Val Asn Gly Gln	Glu Leu Cys Ile Ala		
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Ser His Ser Ile Ala Arg	Ile Ser Phe Ala Lys	Glu Pro His Val Glu		
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Gln Ile Thr Arg Lys Phe	Arg Leu Asn Ser Glu	Gly Lys Leu Glu Gln		
	325	330	335	
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	355	360		

&lt;210&gt; 5559

&lt;211&gt; 3866

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5559

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<210> 5560  
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 <212> PRT  
 <213> Homo sapiens

<400> 5560  
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 Asn Gly Thr Tyr Gly Gln Val Tyr Lys Gly Arg His Val Lys Thr Gly  
 35 40 45  
 Gln Leu Ala Ala Ile Lys Val Met Asp Val Thr Glu Asp Glu Glu Glu  
 50 55 60  
 Glu Ile Lys Leu Glu Ile Asn Met Leu Lys Lys Tyr Ser His His Arg  
 65 70 75 80  
 Asn Ile Ala Thr Tyr Tyr Gly Ala Phe Ile Lys Lys Ser Pro Pro Gly  
 85 90 95  
 His Asp Asp Gln Leu Trp Leu Val Met Glu Phe Cys Gly Ala Gly Ser  
 100 105 110  
 Ile Thr Asp Leu Val Lys Asn Thr Lys Gly Asn Thr Leu Lys Glu Asp  
 115 120 125  
 Trp Ile Ala Tyr Ile Ser Arg Glu Ile Leu Arg Gly Leu Ala His Leu  
 130 135 140  
 His Ile His His Val Ile His Arg Asp Ile Lys Gly Gln Asn Val Leu  
 145 150 155 160  
 Leu Thr Glu Asn Ala Glu Val Lys Leu Val Asp Phe Gly Val Ser Ala  
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 Gln Leu Asp Arg Thr Val Gly Arg Arg Asn Thr Phe Ile Gly Thr Pro  
 180 185 190  
 Tyr Trp Met Ala Pro Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Ala  
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 Thr Tyr Asp Tyr Arg Ser Asp Leu Trp Ser Cys Gly Ile Thr Ala Ile  
 210 215 220  
 Glu Met Ala Glu Gly Ala Pro Pro Leu Cys Asp Met His Pro Met Arg  
 225 230 235 240  
 Ala Leu Phe Leu Ile Pro Arg Asn Pro Pro Arg Leu Lys Ser Lys  
 245 250 255  
 Lys Trp Ser Lys Lys Phe Ile Asp Phe Ile Asp Thr Cys Leu Ile Lys  
 260 265 270  
 Thr Tyr Met Gln Arg Pro Thr Thr Glu Gln Leu Leu Lys Phe Pro Phe  
 275 280 285  
 Ile Arg Asp Gln Pro Thr Glu Arg Gln Val Arg Ile Gln Leu Lys Asp  
 290 295 300  
 His Ile Asp Arg Thr Arg Lys Lys Arg Gly Glu Lys Glu Glu Thr Glu  
 305 310 315 320  
 Tyr Glu Tyr Ser Gly Ser Glu Glu Glu Asp Asp Ser His Gly Glu Glu  
 325 330 335  
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4744

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785		790		795
Cys Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr Arg Lys				800
	805		810	815
Gly Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln Ser Asp				
	820		825	830
Thr Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu Ile Leu				
	835		840	845
Cys Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu Ser Gly				
	850		855	860
Leu Met Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro Leu Ile				
865		870		875
Asn Arg Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu Asn Val				880
	885		890	895
Leu Val Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr Tyr Leu				
	900		905	910
Ser Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val Glu Lys				
	915		920	925
Lys Gln Gly Trp Thr Thr Val Gly Asp Leu Glu Gly Cys Val His Tyr				
	930		935	940
Lys Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala Leu Lys				
945		950		955
Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His Lys Phe				960
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Met Ala Phe Lys Ser Phe Gly Glu Leu Val His Lys Pro Leu Leu Val				
	980		985	990
Asp Leu Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile Tyr Gly Ser				
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Cys Ala Gly Phe His Ala Val Asp Val Asp Ser Gly Ser Val Tyr Asp				
	1010		1015	1020
Ile Tyr Leu Pro Thr His Val Arg Lys Asn Pro His Ser Met Ile Gln				
1025		1030		1035
Cys Ser Ile Lys Pro His Ala Ile Ile Ile Leu Pro Asn Thr Asp Gly				
	1045		1050	1055
Met Glu Leu Leu Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr				
	1060		1065	1070
Tyr Gly Arg Ile Thr Lys Asp Val Val Leu Gln Trp Gly Glu Met Pro				
	1075		1080	1085
Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly Glu				
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Lys Ala Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu Asp Gly Val				
1105		1110		1115
Phe Met His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys Glu Arg Asn				
	1125		1130	1135
Asp Lys Val Phe Phe Ala Ser Val Arg Ser Gly Gly Ser Ser Gln Val				
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Tyr Phe Met Thr Leu Gly Arg Thr Ser Leu Leu Ser Trp				
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&lt;210&gt; 5561

&lt;211&gt; 2089

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 2089

<210> 5562

<211> 372

<212> PRT

<213> Homo sapiens

<400> 5562

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			20					25					30		
Asp	Ser	Asn	Met	Lys	Arg	Glu	Gln	Pro	Arg	Glu	Arg	Pro	Arg	Ala	Trp
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Asp	Tyr	Pro	His	Gly	Leu	Val	Gly	Leu	His	Asn	Ile	Gly	Gln	Thr	Cys
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Ile	Cys	Val	Asp	Cys	Ala	Met	Glu	Ser	Ser	Arg	Asn	Ser	Ser	Met	Leu
			180					185						190	
Thr	Leu	Pro	Leu	Ser	Leu	Phe	Asp	Val	Asp	Ser	Lys	Pro	Leu	Lys	Thr
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&lt;210&gt; 5563

&lt;211&gt; 2878

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5563

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<210> 5564  
 <211> 683  
 <212> PRT  
 <213> Homo sapiens

<400> 5564  
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 35 40 45  
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 50 55 60  
 Tyr Asp Leu Ser Asp Ile Thr Gln Ala Asp Leu Ser Arg Asn Arg Phe  
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 Pro Glu Val Pro Glu Ala Ala Cys Gln Leu Val Ser Leu Glu Gly Leu  
 85 90 95  
 Ser Leu Tyr His Asn Cys Leu Arg Cys Leu Asn Pro Ala Leu Gly Asn  
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 130 135 140  
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 145 150 155 160  
 Leu Arg Gln Leu Asp Val Ser Ser Asn Glu Leu Gln Ser Leu Pro Ser  
 165 170 175  
 Glu Leu Cys Gly Leu Ser Ser Leu Arg Asp Leu Asn Val Arg Arg Asn  
 180 185 190  
 Gln Leu Ser Thr Leu Pro Glu Glu Leu Gly Asp Leu Pro Leu Val Arg  
 195 200 205  
 Leu Asp Phe Ser Cys Asn Arg Val Ser Arg Ile Pro Val Ser Phe Cys  
 210 215 220  
 Arg Leu Arg His Leu Gln Val Ile Leu Leu Asp Ser Asn Pro Leu Gln  
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 Tyr Leu Ser Thr Glu Ala Gly Gln Arg Gly Ser Ala Leu Gly Asp Leu

4751

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 <211> 472  
 <212> DNA  
 <213> Homo sapiens

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 <213> Homo sapiens

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<210> 5567  
 <211> 968  
 <212> DNA  
 <213> Homo sapiens

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<210> 5568

<211> 130

<212> PRT

<213> Homo sapiens

<400> 5568

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			20					25					30		
His	Arg	Ser	Ile	His	Leu	Ala	Pro	Leu	Gln	Ile	Trp	Val	Leu	Cys	Lys
		35					40					45			
Ile	Leu	Pro	Trp	Asp	Thr	Glu	Gly	Lys	Ser	Asp	Thr	Ala	Leu	Leu	Ser
	50					55					60				
Ser	Ser	Gln	Thr	Leu	Arg	Tyr	Pro	Asp	Thr	Thr	Ala	Leu	Ile	Val	Ser
65				70					75					80	
Glu	Asn	Thr	Ala	Thr	Ser	Ala	Gly	Lys	Tyr	Gln	Arg	Cys	Phe	Thr	Arg
			85				90						95		
Tyr	Met	Tyr	Gln	Ile	Leu	Lys	Ala	Ala	Val	Pro	Lys	Tyr	His	Lys	Leu
			100				105						110		
His	Gly	Leu	Lys	Gln	Gln	Lys	Phe	Ile	Pro	Ser	Gln	Ser	Trp	Arg	Pro
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Asp	Val														
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<210> 5569

<211> 876

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5569

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&lt;210&gt; 5570

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5570

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Leu Val Gln Ala Val Glu Tyr Asn Ile Phe Glu Gly Met Glu Cys His
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Gly Ser Pro Leu Val Val Ile Ser Gln Gly Lys Ile Val Phe Glu Asp
35     40     45
Gly Asn Ile Asn Val Asn Lys Gly Met Gly Arg Phe Ile Pro Arg Lys
50     55     60
Ala Phe Pro Glu His Ser Ser Thr Trp Leu Glu Leu His Asn His Gly
65     70     75     80
Arg Arg His Val Cys Glu Ala Ser Trp Gly Cys Thr Ala Asp Pro Leu
85     90     95
Leu Ser Pro Leu Ala Leu Ser Ala Ala Phe Met Trp Leu Ser Pro Ser

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100	105	110
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Gly Thr Leu Ala Lys Met Gln Cys Leu Pro Asn Ser His Ile Ser Phe		
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Gln Val Gln Val Pro Val Cys Asp Gly		160
165		

<210> 5571  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

<400> 5571  
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<210> 5572  
 <211> 135  
 <212> PRT  
 <213> Homo sapiens

<400> 5572  
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 Gln Leu Arg Asp Pro Thr Ser Pro Lys Phe Pro Glu Asp Phe Asp Asp  
 35 40 45  
 Gly Glu His Ala Lys Gln Lys Ser Val Ile Ser Trp Leu Leu Asn His  
 50 55 60  
 Asp Pro Ala Lys Arg Pro Thr Ala Thr Glu Leu Leu Lys Ser Glu Leu  
 65 70 75 80  
 Leu Pro Pro Pro Gln Met Glu Glu Ser Glu Leu His Glu Val Leu His  
 85 90 95  
 His Thr Leu Thr Asn Val Asp Gly Lys Ala Tyr Arg Thr Met Met Ala  
 100 105 110  
 Gln Ile Phe Ser Gln Arg Leu Ala Gly Ala Gly Gly Gly Tyr Arg  
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 Ser Arg Leu Gly Val Pro Arg

130

135

&lt;210&gt; 5573

&lt;211&gt; 1279

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5573

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&lt;210&gt; 5574

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 <212> PRT  
 <213> Homo sapiens

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 Ala Glu Ile Glu Glu Ala Leu Gln Ala Gly Leu Ala Pro Leu Gly Glu  
 35 40 45  
 Tyr Arg Leu Leu Gly Arg Met Phe Arg Arg Asp Glu Asn Arg Lys Val  
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 Ala Leu Val Gly Leu Thr Ala Glu Thr Ser His Ala Leu Val Pro Lys  
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 Glu Ile Pro Gly Lys Gly Gly Ile Trp Arg Val Ile Phe Lys Pro Pro  
 85 90 95  
 Asp Pro Asp Asn Thr Phe Leu Ser Arg Leu Asn Glu Phe Leu Ala Gly  
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 Glu Gly Met Thr Val Gly Glu Leu Ser Arg Ala Leu Gly His Glu Asn  
 115 120 125  
 Gly Ser Leu Asp Pro Glu Gln Gly Met Ile Pro Glu Met Trp Ala Pro  
 130 135 140  
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 Lys Tyr Lys Lys Leu Arg Val Phe Ser Gly Arg Glu Ser Pro Glu Pro  
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 Gly Glu Glu Glu Phe Gly Arg Trp Met Phe His Thr Thr Gln Met Ile  
 180 185 190  
 Lys Ala Trp Gln Val Pro Asp Val Glu Lys Arg Arg Arg Leu Leu Glu  
 195 200 205  
 Ser Leu Arg Gly Pro Ala Leu Asp Val Ile Arg Val Leu Lys Ile Asn  
 210 215 220  
 Asn Pro Leu Ile Thr Val Asp Glu Cys Leu Gln Ala Leu Glu Glu Val  
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 245 250 255  
 Thr Tyr Gln Lys Asp Glu Glu Lys Leu Ser Ala Tyr Val Leu Arg Leu  
 260 265 270  
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<210> 5575  
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 <212> DNA  
 <213> Homo sapiens

<400> 5575  
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<210> 5576

<211> 367

<212> PRT

<213> Homo sapiens

<400> 5576

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			20					25					30		
Gln	Ala	Leu	Thr	Gly	Asn	Glu	Gly	Arg	Val	Ser	Val	Glu	Asn	Ile	Lys
		35					40					45			
Gln	Leu	Leu	Gln	Cys	Leu	Val	Pro	Gly	Ser	Thr	Thr	Leu	His	Ser	Ala
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Glu	Ile	Leu	Ala	Glu	Ile	Ala	Arg	Ile	Leu	Arg	Pro	Gly	Gly	Cys	Leu
65					70				75					80	
Phe	Leu	Lys	Glu	Pro	Val	Glu	Thr	Ala	Val	Asp	Asn	Asn	Ser	Lys	Val
				85				90						95	
Lys	Thr	Ala	Ser	Lys	Leu	Cys	Ser	Ala	Leu	Thr	Leu	Ser	Gly	Leu	Val
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Glu	Val	Lys	Glu	Leu	Gln	Arg	Glu	Pro	Leu	Thr	Pro	Glu	Glu	Val	Gln
	115						120					125			
Ser	Val	Arg	Glu	His	Leu	Gly	His	Glu	Ser	Asp	Asn	Leu	Leu	Phe	Val
	130					135					140				
Gln	Ile	Thr	Gly	Lys	Lys	Pro	Asn	Phe	Glu	Val	Gly	Ser	Ser	Arg	Gln
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Leu	Lys	Leu	Ser	Ile	Thr	Lys	Lys	Ser	Ser	Pro	Ser	Val	Lys	Pro	Ala

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<210> 5578  
 <211> 166  
 <212> PRT  
 <213> Homo sapiens

<400> 5578  
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 Xaa Glu Ser Leu Pro Glu Gln Leu Pro Val Ala Asp Met Arg Ala Leu  
 35 40 45  
 Leu Thr Gly Lys Asp Cys Pro His Val Arg Glu Lys Gly Ser Gly Lys  
 50 55 60  
 Gln Asn Lys Asp Leu Tyr Glu Leu Ala Phe Ser Ile Ser Tyr Asp Arg  
 65 70 75 80  
 Gly Glu Glu Glu Ala Tyr Leu Asn Phe Ile Ala Pro Ser Lys Arg Glu  
 85 90 95  
 Phe Tyr Leu Trp Thr Asp Gly Leu Ser Ala Leu Leu Gly Ser Pro Met  
 100 105 110  
 Gly Ser Glu Gln Thr Arg Leu Asp Leu Glu Gln Leu Leu Thr Met Glu  
 115 120 125  
 Thr Lys Leu Arg Leu Leu Glu Leu Glu Asn Val Pro Ile Pro Glu Arg  
 130 135 140  
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 Cys Ser Ile Ala Glu Pro  
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<210> 5579  
 <211> 1312  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5580

&lt;211&gt; 283

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5580

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Gln	Pro	Ile	Gln	Pro	Ala	Pro	Pro	Leu	Gln	Pro	Ser	Gly	Val	Pro	Thr
			20					25					30		
Ser	Gly	Pro	Ser	Gln	Thr	Thr	Ile	His	Leu	Leu	Pro	Thr	Ala	Pro	Thr
			35				40					45			
Thr	Val	Asn	Val	Thr	His	Arg	Pro	Val	Thr	Gln	Val	Thr	Thr	Arg	Leu
			50			55					60				
Pro	Val	Pro	Arg	Ala	Pro	Ala	Asn	His	Gln	Val	Val	Tyr	Thr	Thr	Leu
65					70				75						80
Pro	Ala	Pro	Pro	Ala	Gln	Ala	Pro	Leu	Arg	Gly	Thr	Val	Met	Gln	Ala
				85				90						95	
Pro	Ala	Val	Arg	Gln	Val	Asn	Pro	Gln	Asn	Ser	Val	Thr	Val	Arg	Val
			100				105					110			
Pro	Gln	Thr	Thr	Thr	Tyr	Val	Val	Asn	Asn	Gly	Leu	Thr	Leu	Gly	Ser
		115				120						125			
Thr	Gly	Pro	Gln	Leu	Thr	Val	His	His	Arg	Pro	Pro	Gln	Val	His	Thr
		130				135					140				
Glu	Pro	Pro	Arg	Pro	Val	His	Pro	Ala	Pro	Leu	Pro	Glu	Ala	Pro	Gln
145					150					155					160
Pro	Gln	Arg	Leu	Pro	Pro	Glu	Ala	Ala	Ser	Thr	Ser	Leu	Pro	Gln	Lys



				165					170					175					
Pro	His	Leu	Lys	Leu	Ala	Arg	Val	Gln	Ser	Gln	Asn	Gly	Ile	Val	Leu				
			180					185					190						
Ser	Trp	Ser	Val	Leu	Glu	Val	Asp	Arg	Ser	Cys	Ala	Thr	Val	Asp	Ser				
		195					200					205							
Tyr	His	Leu	Tyr	Ala	Tyr	His	Glu	Glu	Pro	Ser	Ala	Thr	Val	Pro	Ser				
	210					215					220								
Gln	Trp	Lys	Lys	Ile	Gly	Glu	Val	Lys	Ala	Leu	Pro	Leu	Pro	Met	Ala				
225				230						235				240					
Cys	Thr	Leu	Thr	Gln	Phe	Val	Ser	Gly	Ser	Lys	Tyr	Tyr	Phe	Ala	Val				
			245					250					255						
Arg	Ala	Lys	Asp	Ile	Tyr	Gly	Arg	Phe	Gly	Pro	Phe	Cys	Asp	Pro	Gln				
		260					265						270						
Ser	Thr	Asp	Val	Ile	Ser	Ser	Thr	Gln	Ser	Ser									
	275						280												

&lt;210&gt; 5581

&lt;211&gt; 720

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5581

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&lt;210&gt; 5582

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5582

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<210> 5583
<211> 2101
<212> DNA
<213> Homo sapiens
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2101

&lt;210&gt; 5584

&lt;211&gt; 454

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5584

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      20           25           30
Glu Arg Val Ala Ala Leu Gln Thr Val Gly Pro Thr Ala Gly Pro Ala
      35           40           45
Pro Asn Ala Phe Thr Ser Thr Leu Glu Lys Val Gly Asp His Gln Phe
      50           55           60
Leu Leu Tyr Ser Gly Arg Ser Pro Pro Thr Pro Thr Gly Leu Val His
      65           70           75           80
Leu Val Val Val Ala Ala Lys Lys Leu Val Asn Arg Leu Gln Val Ala
      85           90           95
Pro Lys Thr Gln Leu Asp Glu Thr Val Leu Trp Val Val His Val Ser
      100          105          110
Gly Pro Ile Asn Pro Gln Val Leu Lys Ser Lys Ala Ala Lys Glu Leu
      115          120          125
Lys Ala Leu Gln Asp Leu Ala Arg Lys Glu Met Leu Glu Leu Leu Asp
      130          135          140
Met Pro Ala Ala Glu Leu Gln Asp His Gln Leu Leu Trp Ala Gln
      145          150          155          160
Leu Phe Ser Pro Gly Val Glu Met Lys Lys Ile Thr Asp Thr His Thr
      165          170          175
Pro Ser Gly Leu Thr Val Asn Leu Thr Leu Tyr Tyr Met Leu Ser Cys
      180          185          190
Ser Pro Ala Pro Leu Leu Ser Pro Ser Leu Ser His Arg Glu Arg Asp
      195          200          205
Gln Met Glu Ser Thr Leu Asn Tyr Glu Asp His Cys Phe Ser Gly His
      210          215          220
Ala Thr Met His Ala Glu Asn Leu Trp Pro Gly Arg Leu Ser Ser Val
      225          230          235          240
Gln Gln Ile Leu Gln Leu Ser Asp Leu Trp Arg Leu Thr Leu Gln Lys
      245          250          255
Arg Gly Cys Lys Gly Leu Val Lys Val Gly Ala Pro Gly Ile Leu Gln
      260          265          270
Gly Met Val Leu Ser Phe Gly Gly Leu Gln Phe Thr Glu Asn His Leu
      275          280          285
Gln Phe Gln Ala Asp Pro Asp Val Leu His Asn Ser Tyr Ala Leu His
      290          295          300
Gly Ile Arg Tyr Lys Asn Asp His Ile Asn Leu Ala Val Leu Arg Met
      305          310          315          320
Pro Arg Ala Ser Pro Thr Tyr Thr Cys Pro Trp Ser Pro Val Ala Ser
      325          330          335
Leu Ser Xaa Ile Tyr Ala Cys Lys Ala Gly Cys Leu Asp Glu Pro Val
      340          345          350
Glu Leu Thr Ser Ala Pro Thr Gly His Thr Phe Ser Val Met Val Thr
      355          360          365
Gln Pro Ile Thr Pro Leu Leu Tyr Ile Ser Thr Asp Leu Thr His Leu
      370          375          380
Gln Asp Leu Arg His Thr Leu His Leu Lys Ala Ile Leu Ala His Asp

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	420		425		430	
Ile Tyr Asn Glu Tyr Cys Gly Pro Gly Ala Lys Pro Leu Phe Arg Ser						
	435		440		445	
Lys Glu Asp Pro Ser Val						
450						

&lt;210&gt; 5585

&lt;211&gt; 740

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5585

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740

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&lt;210&gt; 5586

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5586

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Gln Phe Pro Gly Ala Lys Gln Pro Ser Ser Pro Gln Tyr Leu Ser His										
	20		25		30					
Leu Lys Arg Ser Cys Pro Thr Tyr Leu Ser Pro Pro Gln Pro Lys Asp										

	35					40						45							
Ser	Ser	Lys	Leu	Leu	Cys	Ser	Met	Thr	Ala	Ala	Cys	Pro	Thr	Leu	Ser				
	50					55					60								
Leu	Leu	Asp	Leu	Gln	Leu	Arg	Leu	Arg	Arg	Glu	Val	Gly	Glu	Gly	His				
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Cys	Pro	Ile	Leu	Asp	Leu	Thr													
					85														

&lt;210&gt; 5587

&lt;211&gt; 853

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5587

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&lt;210&gt; 5588

&lt;211&gt; 204

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5588

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<211> 1327
<212> DNA
<213> Homo sapiens
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<210> 5590

<211> 207

<212> PRT

<213> Homo sapiens

<400> 5590

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Glu	Glu	Gln	Glu	Glu	Arg	Lys	Pro	Ser	Ala	Thr	Gln	Gln	Lys	Lys	Asn	35	40	45	
Thr	Lys	Leu	Ser	Ser	Lys	Thr	Thr	Ala	Lys	Leu	Ser	Thr	Ser	Ala	Lys	50	55	60	
Arg	Ile	Gln	Lys	Glu	Leu	Ala	Glu	Ile	Thr	Leu	Asp	Pro	Pro	Pro	Asn	65	70	75	80
Cys	Ser	Ala	Gly	Pro	Lys	Gly	Asp	Asn	Ile	Tyr	Glu	Trp	Arg	Ser	Thr	85	90	95	
Ile	Leu	Gly	Pro	Pro	Gly	Ser	Val	Tyr	Glu	Gly	Gly	Val	Phe	Phe	Leu	100	105	110	
Asp	Ile	Thr	Phe	Ser	Ser	Asp	Tyr	Pro	Phe	Lys	Pro	Pro	Lys	Val	Thr	115	120	125	
Phe	Arg	Thr	Arg	Ile	Tyr	His	Cys	Asn	Ile	Asn	Ser	Gln	Gly	Val	Ile	130	135	140	
Cys	Leu	Asp	Ile	Leu	Lys	Asp	Asn	Trp	Ser	Pro	Ala	Leu	Thr	Ile	Ser	145	150	155	160
Lys	Val	Leu	Leu	Ser	Ile	Cys	Ser	Leu	Leu	Thr	Asp	Cys	Asn	Pro	Ala	165	170	175	
Asp	Pro	Leu	Val	Gly	Ser	Ile	Ala	Thr	Gln	Tyr	Leu	Thr	Asn	Arg	Ala	180	185	190	
Glu	His	Asp	Arg	Ile	Ala	Arg	Gln	Trp	Thr	Lys	Arg	Tyr	Ala	Thr					



195

200

205

&lt;210&gt; 5591

&lt;211&gt; 2194

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5591

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&lt;210&gt; 5592

&lt;211&gt; 580

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5592

Met	Pro	Ser	Gly	Ser	Ala	Arg	Pro	Val	Ala	Pro	Gly	Ala	Arg	Arg	Leu
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Val	Pro	Cys	Arg	Thr	Pro	Thr	Arg	Gln	Leu	Arg	Glu	Glu	Leu	Val	Ile
			20					25					30		
Thr	Pro	Leu	Pro	Ser	Gly	Asp	Val	Ala	Ala	Thr	Phe	Gln	Phe	Arg	Thr
			35				40					45			
Arg	Trp	Asp	Ser	Asp	Leu	Gln	Arg	Glu	Gly	Val	Ser	His	Tyr	Arg	Leu
	50					55					60				
Phe	Pro	Lys	Ala	Leu	Gly	Gln	Leu	Ile	Ser	Lys	Tyr	Ser	Leu	Arg	Glu
65					70					75				80	
Leu	His	Leu	Ser	Phe	Thr	Gln	Gly	Phe	Trp	Arg	Thr	Arg	Tyr	Trp	Gly
				85				90						95	Pro Phe Leu
Gln	Ala	Pro	Ser	Gly	Ala	Glu	Leu	Trp	Val	Trp	Phe				
			100					105				110			
Gln	Asp	Thr	Val	Thr	Asp	Val	Asp	Lys	Ser	Trp	Arg	Glu	Leu	Ser	Asn
		115					120					125			
Val	Leu	Ser	Gly	Ile	Phe	Cys	Ala	Ser	Leu	Asn	Phe	Ile	Asp	Ser	Thr
	130					135					140				
Asn	Thr	Val	Thr	Pro	Thr	Ala	Ser	Phe	Lys	Pro	Leu	Gly	Leu	Ala	Asn

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	165		170			175
Val Cys Thr Glu Asn Leu Thr Pro Trp Lys Lys Leu Leu Pro Cys Ser						
	180		185			190
Ser Lys Ala Gly Leu Ser Val Leu Leu Lys Ala Asp Arg Leu Phe His						
	195		200			205
Thr Ser Tyr His Ser Gln Ala Val His Ile Arg Pro Val Cys Arg Asn						
	210		215			220
Ala Arg Cys Thr Ser Ile Ser Trp Glu Leu Arg Gln Thr Leu Ser Val						
	225		230			235
Val Phe Asp Ala Phe Ile Thr Gly Gln Gly Lys Lys Asp Trp Ser Leu						
	245		250			255
Phe Arg Met Phe Ser Arg Thr Leu Thr Glu Pro Cys Pro Leu Ala Ser						
	260		265			270
Glu Ser Arg Val Tyr Val Asp Ile Thr Thr Tyr Asn Gln Pro Cys Leu						
	275		280			285
Cys Val Gln Asp Asn Glu Thr Leu Glu Val His Pro Pro Pro Thr Thr						
	290		295			300
Thr Tyr Gln Asp Val Ile Leu Gly Thr Arg Lys Thr Tyr Ala Ile Tyr						
	305		310			315
Asp Leu Leu Asp Thr Ala Met Ile Asn Asn Ser Arg Asn Leu Asn Ile						
	325		330			335
Gln Leu Lys Trp Lys Arg Pro Pro Glu Asn Glu Ala Pro Pro Val Pro						
	340		345			350
Phe Leu His Ala Gln Arg Tyr Val Ser Gly Tyr Gly Leu Gln Lys Gly						
	355		360			365
Glu Leu Ser Thr Leu Leu Tyr Asn Thr His Pro Tyr Arg Ala Phe Pro						
	370		375			380
Val Leu Leu Leu Asp Thr Val Pro Trp Tyr Leu Arg Leu Tyr Val His						
	385		390			395
Thr Leu Thr Ile Thr Ser Lys Gly Lys Glu Asn Lys Pro Ser Tyr Ile						
	405		410			415
His Tyr Gln Pro Ala Gln Asp Arg Leu Gln Pro His Leu Leu Glu Met						
	420		425			430
Leu Ile Gln Leu Pro Ala Asn Ser Val Thr Lys Val Ser Ile Gln Phe						
	435		440			445
Glu Arg Ala Leu Leu Lys Trp Thr Glu Tyr Thr Pro Asp Pro Asn His						
	450		455			460
Gly Phe Tyr Val Ser Pro Ser Val Leu Ser Ala Leu Val Pro Ser Met						
	465		470			475
Val Ala Ala Lys Pro Val Asp Trp Glu Glu Ser Pro Leu Phe Asn Ser						
	485		490			495
Leu Phe Pro Val Ser Asp Gly Ser Asn Tyr Phe Val Arg Leu Tyr Thr						
	500		505			510
Glu Pro Leu Leu Val Asn Leu Pro Thr Pro Asp Phe Ser Met Pro Tyr						
	515		520			525
Asn Val Ile Cys Leu Thr Cys Thr Val Val Ala Val Cys Tyr Gly Ser						
	530		535			540
Phe Tyr Asn Leu Leu Thr Arg Thr Phe His Ile Glu Glu Pro Arg Thr						
	545		550			555
Gly Gly Leu Ala Lys Arg Leu Ala Asn Leu Ile Arg Arg Ala Arg Gly						
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Val Pro Pro Leu						

580

&lt;210&gt; 5593

&lt;211&gt; 3078

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5593

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<210> 5594

<211> 296

<212> PRT

<213> Homo sapiens

<400> 5594

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His	Val	Arg	Arg	Met	Phe	His	Pro	Gly	Arg	Gly	Leu	Gly	Gly	Pro	Arg
65				70					75					80	
Ala	Arg	Arg	Ser	Asn	Met	His	Phe	Thr	Ser	Ser	Ser	Thr	Gly	Gly	Leu
			85						90				95		
Ser	Ser	Ser	Gln	Ser	Ser	Tyr	Ser	Pro	Ser	Asn	Arg	Glu	Ala	Met	Asp
			100					105					110		
Pro	Ile	Ala	Glu	Leu	Leu	Ser	Gln	Leu	Ser	Gly	Val	Arg	Arg	Ser	Ala
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	130					135					140				
Leu	Gln	Met	Gln	Leu	Gln	Leu	Glu	Arg	Gln	His	Ala	Gln	Ala	Ala	Arg
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Gln	Gln	Leu	Glu	Thr	Ala	Arg	Asn	Ala	Thr	Arg	Arg	Thr	Asn	Thr	Ser
				165					170					175	
Ser	Val	Thr	Thr	Thr	Ile	Thr	Gln	Ser	Thr	Ala	Thr	Thr	Asn	Ile	Ala
		180					185						190		
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Cys Leu Ala Thr Val Leu Thr Ser Leu Glu Gly Leu Ser Gly Thr Trp
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Ser Ser Ser Ala Asn Ser Ile Leu His Ile Asp Pro Lys Thr Gly Val
545          550          555          560
Ala Val Ala Arg Ala Val Gly Ser Val Thr Val Tyr Tyr Glu Val Ala
          565          570          575
Gly His Leu Arg Thr Tyr Lys Glu Val Val Val Ser Val Pro Gln Arg
          580          585          590
Ile Met Ala Arg His Leu His Pro Ile Gln Thr Ser Phe Gln Glu Ala
          595          600          605
Thr Ala Ser Lys Val Ile Val Ala Val Gly Asp Arg Ser Ser Asn Leu
          610          615          620
Arg Gly Glu Cys Thr Pro Thr Gln Arg Glu Val Ile Gln Ala Leu His
625          630          635          640
Pro Glu Thr Leu Ile Ser Cys Gln Ser Gln Phe Lys Pro Ala Val Phe
          645          650          655
Asp Phe Pro Ser Gln Asp Val Phe Thr Val Glu Pro Gln Phe Asp Thr
          660          665          670
Ala Leu Gly Gln Tyr Phe Cys Ser Ile Thr Met His Arg Leu Thr Asp
          675          680          685
Lys Gln Arg Lys His Leu Ser Met Lys Lys Thr Ala Leu Val Val Ser
          690          695          700
Ala Ser Leu Ser Ser Ser His Phe Ser Thr Glu Gln Val Gly Ala Glu
705          710          715          720
Val Pro Phe Ser Pro Gly Leu Phe Ala Asp Gln Ala Glu Ile Leu Leu
          725          730          735
Ser Asn His Tyr Thr Ser Ser Glu Ile Arg Val Phe Gly Ala Pro Glu

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740	745	750
Val Leu Glu Asn Leu Glu Val Lys Ser Gly Ser Pro Ala Val Leu Ala		
755	760	765
Phe Ala Lys Glu Lys Ser Phe Gly Trp Pro Ser Phe Ile Thr Tyr Thr		
770	775	780
Val Gly Val Ser Asp Pro Ala Ala Gly Ser Gln Gly Pro Leu Ser Thr		
785	790	795
Thr Leu Thr Phe Ser Ser Pro Val Thr Asn Gln Ala Ile Ala Ile Pro		
805	810	815
Val Thr Val Ala Phe Val Met Asp Arg Arg Gly Pro Gly Pro Tyr Gly		
820	825	830
Ala Ser Leu Phe Gln His Phe Leu Asp Ser Tyr Gln Val Met Phe Phe		
835	840	845
Thr Leu Phe Ala Leu Leu Ala Gly Thr Ala Val Met Ile Ile Ala Tyr		
850	855	860
His Thr Val Cys Thr Pro Arg Asp Leu Ala Val Pro Ala Ala Leu Thr		
865	870	875
Pro Arg Ala Ser Pro Gly His Ser Pro His Tyr Phe Ala Ala Ser Ser		
885	890	895
Pro Thr Ser Pro Asn Ala Leu Pro Pro Ala Arg Lys Ala Ser Pro Pro		
900	905	910
Ser Gly Leu Trp Ser Pro Ala Tyr Ala Ser His		
915	920	

&lt;210&gt; 5601

&lt;211&gt; 670

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5601

```

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cttcacgcgt
670

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<210> 5602  
 <211> 213  
 <212> PRT  
 <213> Homo sapiens

<400> 5602  
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 Arg Arg Thr Thr Ala Ser Leu Leu Arg Lys Leu Thr Thr Ala Ser Asn  
 35 40 45  
 Gly Gly Val Ile Glu Glu Leu Ser Cys Val Arg Ser Asn Asn Tyr Val  
 50 55 60  
 Gln Glu Pro Glu Cys Arg Arg Asn Leu Val Gln Cys Leu Leu Glu Lys  
 65 70 75 80  
 Gln Gly Thr Pro Val Val Gln Gly Ser Leu Glu Leu Glu Arg Val Met  
 85 90 95  
 Ser Ser Leu Leu Asp Met Gly Phe Ser Asn Ala His Ile Asn Glu Leu  
 100 105 110  
 Leu Ser Val Arg Arg Gly Ala Ser Leu Gln Gln Leu Leu Asp Ile Ile  
 115 120 125  
 Ser Glu Phe Ile Leu Leu Gly Leu Asn Pro Glu Pro Val Cys Val Val  
 130 135 140  
 Leu Lys Lys Ser Pro Gln Leu Leu Lys Leu Pro Ile Met Gln Met Arg  
 145 150 155 160  
 Lys Arg Ser Ser Tyr Leu Gln Lys Leu Gly Leu Gly Glu Gly Lys Leu  
 165 170 175  
 Lys Arg Val Leu Tyr Cys Cys Pro Glu Ile Phe Thr Met Arg Gln Gln  
 180 185 190  
 Asp Ile Asn Asp Thr Val Arg Leu Leu Lys Glu Lys Cys Leu Phe Thr  
 195 200 205  
 Val Pro Leu His Ala  
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<210> 5603  
 <211> 2070  
 <212> DNA  
 <213> Homo sapiens

<400> 5603  
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 catgatggag acccttcaaa tttgcttatg ttctttttca gcctatagac cagatataat  
 180  
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 aacatctctt gtggatttca ctacttggct tctgtgttca tgggagtcac ccctcatcat  
 300  
 gtctgcaggc cccagggcaa tgtgagtcag gttgttttcc ataatcactc taattggagt  
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420  
cagaatggtg agatctggga gctctcaagg tgtagcagga ataagagggga gaacacatcg  
480  
agtttgggct atgaatacac tggcagtaag aaagagtttc cttgtgtgga tggctacata  
540  
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720  
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780  
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1080  
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1140  
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1200  
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1680  
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1740  
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1800  
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1920  
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1980

tgtcttttta ataaattttg taagaaaatt ttaaagcaaa tatgttataa aagaaataaa  
 2040  
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 2070

<210> 5604

<211> 560

<212> PRT

<213> Homo sapiens

<400> 5604

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Cys	Gly	Ile	His	Tyr	Leu	Ala	Ser	Val	Phe	Met	Gly	Val	Thr	Pro	His
			20					25					30		
His	Val	Cys	Arg	Pro	Pro	Gly	Asn	Val	Ser	Gln	Val	Val	Phe	His	Asn
		35					40					45			
His	Ser	Asn	Trp	Ser	Leu	Glu	Asp	Thr	Gly	Ala	Leu	Leu	Ser	Ser	Gly
	50					55					60				
Gln	Lys	Asp	Tyr	Val	Thr	Val	Gln	Leu	Gln	Asn	Gly	Glu	Ile	Trp	Glu
65					70					75				80	
Leu	Ser	Arg	Cys	Ser	Arg	Asn	Lys	Arg	Glu	Asn	Thr	Ser	Ser	Leu	Gly
			85						90					95	
Tyr	Glu	Tyr	Thr	Gly	Ser	Lys	Lys	Glu	Phe	Pro	Cys	Val	Asp	Gly	Tyr
			100					105					110		
Ile	Tyr	Asp	Gln	Asn	Thr	Trp	Lys	Ser	Thr	Ala	Val	Thr	Gln	Trp	Asn
		115					120					125			
Leu	Val	Cys	Asp	Arg	Lys	Trp	Leu	Ala	Met	Leu	Ile	Gln	Pro	Leu	Phe
	130					135				140					
Met	Phe	Gly	Val	Leu	Leu	Gly	Ser	Val	Thr	Phe	Gly	Tyr	Phe	Ser	Asp
145					150					155				160	
Arg	Leu	Gly	Arg	Arg	Val	Val	Leu	Trp	Ala	Thr	Ser	Ser	Ser	Met	Phe
			165						170					175	
Leu	Phe	Gly	Ile	Ala	Ala	Ala	Phe	Ala	Val	Asp	Tyr	Tyr	Thr	Phe	Met
		180					185						190		
Ala	Ala	Arg	Phe	Phe	Leu	Ala	Met	Val	Ala	Ser	Gly	Tyr	Leu	Val	Val
		195					200					205			
Gly	Phe	Val	Tyr	Val	Met	Glu	Phe	Ile	Gly	Met	Lys	Ser	Arg	Thr	Trp
	210					215					220				
Ala	Ser	Val	His	Leu	His	Ser	Phe	Phe	Ala	Val	Gly	Thr	Leu	Leu	Val
225					230					235				240	
Ala	Leu	Thr	Gly	Tyr	Leu	Val	Arg	Thr	Trp	Trp	Leu	Tyr	Gln	Met	Ile
			245						250					255	
Leu	Ser	Thr	Val	Thr	Val	Pro	Phe	Ile	Leu	Cys	Cys	Trp	Val	Leu	Pro
		260					265						270		
Glu	Thr	Pro	Phe	Trp	Leu	Leu	Ser	Glu	Gly	Arg	Tyr	Glu	Glu	Ala	Gln
		275					280					285			
Lys	Ile	Val	Asp	Ile	Met	Ala	Lys	Trp	Asn	Arg	Ala	Ser	Ser	Cys	Lys
	290					295					300				
Leu	Ser	Glu	Leu	Leu	Ser	Leu	Asp	Leu	Gln	Gly	Pro	Val	Ser	Asn	Ser
305					310					315				320	
Pro	Thr	Glu	Val	Gln	Lys	His	Asn	Leu	Ser	Tyr	Leu	Phe	Tyr	Asn	Trp
			325						330					335	
Ser	Ile	Thr	Lys	Arg	Thr	Leu	Thr	Val	Trp	Leu	Ile	Trp	Phe	Thr	Gly

	340		345		350										
Ser	Leu	Gly	Phe	Tyr	Ser	Phe	Ser	Leu	Asn	Ser	Val	Asn	Leu	Gly	Gly
	355		360		365										
Asn	Glu	Tyr	Leu	Asn	Leu	Phe	Leu	Leu	Gly	Val	Val	Glu	Ile	Pro	Ala
	370		375		380										
Tyr	Thr	Phe	Val	Cys	Ile	Ala	Met	Asp	Lys	Val	Gly	Arg	Arg	Thr	Val
385			390		395									400	
Leu	Ala	Tyr	Ser	Leu	Phe	Cys	Ser	Ala	Leu	Ala	Cys	Gly	Val	Val	Met
			405		410									415	
Val	Ile	Pro	Gln	Lys	His	Tyr	Ile	Leu	Gly	Val	Val	Thr	Ala	Met	Val
			420		425									430	
Gly	Lys	Phe	Ala	Ile	Gly	Ala	Ala	Phe	Gly	Leu	Ile	Tyr	Leu	Tyr	Thr
			435		440									445	
Ala	Glu	Leu	Tyr	Pro	Thr	Ile	Val	Arg	Ser	Leu	Ala	Val	Gly	Ser	Gly
			450		455									460	
Ser	Met	Val	Cys	Arg	Leu	Ala	Ser	Ile	Leu	Ala	Pro	Phe	Ser	Val	Asp
465					470									480	
Leu	Ser	Ser	Ile	Trp	Ile	Phe	Ile	Pro	Gln	Leu	Phe	Val	Gly	Thr	Met
			485		490									495	
Ala	Leu	Leu	Ser	Gly	Val	Leu	Thr	Leu	Lys	Leu	Pro	Glu	Thr	Leu	Gly
			500		505									510	
Lys	Arg	Leu	Ala	Thr	Thr	Trp	Glu	Glu	Ala	Ala	Lys	Leu	Glu	Ser	Glu
			515		520									525	
Asn	Glu	Ser	Lys	Ser	Ser	Lys	Leu	Leu	Leu	Thr	Thr	Asn	Asn	Ser	Gly
			530		535									540	
Leu	Glu	Lys	Thr	Glu	Ala	Ile	Thr	Pro	Arg	Asp	Ser	Gly	Leu	Gly	Glu
545					550					555					560

&lt;210&gt; 5605

&lt;211&gt; 376

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5605

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120catccagggg ggcctctcca gggaggatga cggaacatca gaggaagaa gcaaggagaa  
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240tctgcagggg tgggcttgcc tggcagggag caataccaag gaagttagta gggcccgggt  
300catgccacgg ccttgtaggc agaaccctta agtctctttg tagggacccc tttggtctcc  
360

cctttgaact acgccc

376

&lt;210&gt; 5606

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5606

```

Met Thr Arg Ala Leu Leu Thr Ser Leu Val Leu Leu Pro Ala Arg Gln
 1           5           10           15
Ala His Pro Cys Arg Ala Leu Ala Leu Thr Ala Pro Ile Phe Leu Leu
          20           25           30
Leu Phe Pro Ser Ser Glu Cys Gly Trp Phe Ser Leu Leu Leu Ser Ser
          35           40           45
Asp Val Pro Ser Ser Ser Leu Glu Arg Pro Pro Trp Met Thr Glu Glu
          50           55           60
Val Thr Thr Thr Ser Ser Arg Ser Thr Pro Arg Pro Ser Val Ser Pro
65           70           75           80
Ser Gln Cys Leu Ala Pro Ser Asn Ile Ala Phe Cys Val Tyr His Gln
          85           90           95
Phe Pro Phe Thr Arg
          100

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&lt;210&gt; 5607

&lt;211&gt; 320

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5607

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ggtttggggc gacacgcgga aggccgggtg gagcccatcc atgctgtggt gttgcctcga
120
gggaagtgcg tggaccagtg tgtggagacc ctgcagaagc agaccagggt tggcaaggct
180
ggcaccaaca agccccccag gtgccgggga agagggggcca ggcttggggg ccgcccagct
240
cctcggaatg tgtttgactt cctcaatgaa aagctgcaag gtcaggctcc tggggcccta
300
caagccgggc ggcttcagca
320

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&lt;210&gt; 5608

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5608

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Val His Thr Arg Gly Ile Gly Ser Arg Leu Leu Thr Lys Met Gly Tyr
 1           5           10           15
Glu Phe Gly Lys Gly Leu Gly Arg His Ala Glu Gly Arg Val Glu Pro
          20           25           30
Ile His Ala Val Val Leu Pro Arg Gly Lys Ser Leu Asp Gln Cys Val
          35           40           45
Glu Thr Leu Gln Lys Gln Thr Arg Val Gly Lys Ala Gly Thr Asn Lys
          50           55           60
Pro Pro Arg Cys Arg Gly Arg Gly Ala Arg Pro Gly Gly Arg Pro Ala
65           70           75           80
Pro Arg Asn Val Phe Asp Phe Leu Asn Glu Lys Leu Gln Gly Gln Ala
          85           90           95
Pro Gly Ala Leu Gln Ala Gly Arg Pro Gln

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100

105

&lt;210&gt; 5609

&lt;211&gt; 1843

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5609

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240  
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600  
aatgaggatg gcggaggaag aggagtgggtg actgaaggga ggtggtgcat aataagtga  
660  
cgagctacac aaagctcgag ctacacaaag ctcaggctcc acgggcctcg ccttggtctc  
720  
cagggatgct ctgcagccag cgggcggatg acctgaggtc gggcctgggc ctgtcccttt  
780  
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 1680  
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 1740  
 aantatagtt ttagaatata gtctgatatg acaaagtagg gattttttaa gcctaacatt  
 1800  
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<210> 5610

<211> 153

<212> PRT

<213> Homo sapiens

<400> 5610

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			20					25					30		
Phe	Thr	Gly	Gly	Arg	Gln	Asp	His	Thr	Ser	Leu	Pro	His	Trp	Ala	Cys
		35				40						45			
Leu	Leu	Val	Asp	Ser	Cys	Met	Gln	Glu	Ala	Val	Met	Gly	Ser	Leu	Arg
	50				55					60					
Ile	Pro	Gln	Cys	Gly	Asn	Gly	Pro	Leu	Arg	Leu	Val	Leu	Arg	Val	Pro
65					70				75					80	
Gly	Ala	Gln	Ser	Trp	Val	Gly	Gly	Cys	Trp	Trp	Glu	Val	Arg	Asn	Lys
			85					90					95		
Phe	Trp	Leu	Pro	Ser	Gly	Gln	Leu	Pro	Thr	Ala	Leu	Thr	Trp	Glu	Val
		100					105						110		
Asp	Ala	His	Arg	Gln	Asp	Ala	Leu	Gly	Tyr	Cys	Cys	Thr	Val	Leu	His
	115					120						125			
Glu	Ile	Phe	Ile	Gln	Pro	Thr	Arg	Phe	Asn	Arg	Ser	Leu	Gly	Ser	Ser
	130					135					140				
Ser	Arg	Leu	Leu	Cys	Leu	Phe	Lys	His							
145					150										

<210> 5611

<211> 1152

<212> DNA

<213> Homo sapiens

<400> 5611

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 120

cgggtcctgg cgctcagag cccggcccag gccgcggaac ggtgatgctc gggccggacg  
 180  
 ggcgagcgcg gatccctgcg tcccgctgaa aatgtgtgtc tgacatgcaa gctcagtggg  
 240  
 gcagagaccc gtggattgct gtgccctgcc ctccggacct ggatcatgaa ggtgttgagg  
 300  
 agaagcttct tctgggtgct gtttcccgtc cttccctggg cgggtgcaggc tgtggagcac  
 360  
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 420  
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&lt;210&gt; 5612

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5612

Met	Lys	Val	Leu	Gly	Arg	Ser	Phe	Phe	Trp	Val	Leu	Phe	Pro	Val	Leu
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Pro	Trp	Ala	Val	Gln	Ala	Val	Glu	His	Glu	Glu	Val	Ala	Gln	Arg	Val
			20					25					30		
Ile	Lys	Leu	His	Arg	Gly	Arg	Gly	Val	Ala	Ala	Met	Gln	Ser	Arg	Gln
		35					40					45			
Trp	Val	Arg	Asp	Ser	Cys	Arg	Lys	Leu	Ser	Gly	Leu	Leu	Arg	Gln	Lys
	50					55					60				
Asn	Ala	Val	Leu	Asn	Lys	Leu	Lys	Thr	Ala	Ile	Gly	Ala	Val	Glu	Lys
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Asp	Val	Gly	Leu	Ser	Asp	Glu	Glu	Lys	Leu	Phe	Gln	Val	His	Thr	Phe



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<210> 5613
<211> 1679
<212> DNA
<213> Homo sapiens
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300
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360
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420
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480
aaaaaggaat gtgcggcaag aggagaagac tatgagaaag tgaagttgct ggagatcagt
540
gcagaagatg cagaaagatg ggagaggaaa aagaagagga aaaaccctga tctgggattt
600

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 660  
 gacatggaaa catatgagag actgagagaa aaacatggag aagagttttt cccaacatcc  
 720  
 aatagtcttc ttcattggaac acatgtgcct tccacagagg aaattgacag gatggtcata  
 780  
 gatctggaaa aacagattga aaaacgagac aaatatagcc ggagacgtcc ttataatgat  
 840  
 gatgcagata tcgactacat taatgaaagg aatgccaaat tcaacaagaa agctgaaaga  
 900  
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 960  
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 1020  
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 1080  
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 1140  
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 1200  
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 1320  
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 1679

&lt;210&gt; 5614

&lt;211&gt; 242

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5614

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Ser	Leu	Ala	Ala	Ala	Ala	Glu	Leu	Ala	Ala	Gln	Lys	Arg	Glu	Gln	Arg
			20					25					30		
Leu	Arg	Lys	Phe	Arg	Glu	Leu	His	Leu	Met	Arg	Asn	Glu	Ala	Arg	Lys
		35					40					45			
Leu	Asn	His	Gln	Glu	Val	Val	Glu	Glu	Asp	Lys	Arg	Leu	Lys	Leu	Pro
	50					55					60				
Ala	Asn	Trp	Glu	Ala	Lys	Lys	Ala	Arg	Leu	Glu	Trp	Glu	Leu	Lys	Glu
65					70					75				80	
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<210> 5615
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<212> DNA
<213> Homo sapiens
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4797

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 960  
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 1380  
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 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 Gln Gln Gln Gln Gln Gly Val Leu Pro Gln Thr Val Pro Ser Gln Pro  
 35 40 45  
 Ser Ser Ser Thr Val Pro Pro Pro Pro His Arg Pro Leu Tyr Gln Pro  
 50 55 60  
 Met Gln Pro His Pro Gln His Leu Ala Ser Met Gly Phe Asp Pro Arg  
 65 70 75 80  
 Trp Leu Met Met Gln Ser Tyr Met Asp Pro Arg Met Met Ser Gly Arg  
 85 90 95  
 Pro Ala Met Asp Ile Pro Pro Ile His Pro Gly Met Ile Pro Pro Lys  
 100 105 110  
 Pro Leu Met Arg Arg Asp Gln Met Glu Gly Ser Pro Asn Ser Ser Glu  
 115 120 125  
 Ser Phe Glu His Ile Ala Arg Ser Ala Arg Asp His Ala Ile Ser Leu  
 130 135 140  
 Ser Glu Pro Arg Met Leu Trp Gly Ser Asp Pro Tyr Pro His Ala Glu  
 145 150 155 160  
 Pro Gln Gln Ala Thr Thr Pro Lys Ala Thr Glu Glu Pro Glu Asp Val

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      165      170      175
Arg Ser Glu Ala Ala Leu Asp Gln Glu Gln Ile Thr Ala Ala Tyr Ser
      180      185      190
Val Glu His Asn Gln Leu Glu Ala His Pro Lys Ala Asp Phe Ile Arg
      195      200      205
Glu Ser Ser Glu Ala Gln Val Gln Lys Phe Leu Ser Arg Ser Val Glu
      210      215      220
Asp Val Arg Pro His His Thr Asp Ala Asn Asn Gln Ser Ala Cys Phe
      225      230      235
Glu Ala Pro Asp Gln Lys Thr Leu Ser Thr Pro Gln Glu Glu Arg Ile
      245      250      255
Ser Ala Val Glu Ser Gln Pro Ser Arg Lys Arg Ser Val Ser His Gly
      260      265      270
Ser Asn His Thr Gln Lys Pro Asp Glu Gln Arg Ser Glu Pro Ser Ala
      275      280      285
Gly Ile Pro Lys Val Thr Ser Arg Cys Ile Asp Ser Lys Glu Pro Ile
      290      295      300
Glu Arg Pro Glu Glu Lys Pro Lys Lys Glu Gly Phe Ile Arg Ser Ser
      305      310      315
Glu Gly Pro Lys Pro Glu Lys Val Tyr Lys Ser Lys Ser Glu Thr Arg
      325      330      335
Trp Gly Pro Arg Pro Ser Ser Asn Arg Arg Glu Glu Val Asn Asp Arg
      340      345      350
Pro Val Arg Arg Ser Gly Pro Ile Lys Lys Pro Val Leu Arg Asp Met
      355      360      365
Lys Glu Glu Arg Glu Gln Arg Lys Glu Lys Glu Gly Glu Lys Ala Glu
      370      375      380
Lys Val Thr Glu Lys Val Val Val Lys Pro Glu Lys Thr Glu Lys Lys
      385      390      395
Asp Leu Pro Pro Pro Pro Pro Pro Gln Pro Pro Ala Pro Ile Gln
      405      410      415
Pro Gln Ser Val Pro Pro Pro Ile Gln Pro Glu Ala Glu Lys Phe Pro
      420      425      430
Ser Thr Glu Thr Ala Thr Leu Ala Gln Lys Pro Ser Gln Asp Thr Glu
      435      440      445
Lys Pro Leu Glu Pro Val Ser Thr Val Gln Val Glu Pro Ala Val Lys
      450      455      460
Thr Val Asn Gln Gln Thr Met Ala Ala Pro Val Val Lys Glu Lys Glu
      465      470      475
Leu Gln Lys Lys Glu Arg Lys Gln Glu Lys Glu Lys Glu Leu Glu Arg
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Gln Lys Glu Lys Glu Lys Glu Leu Gln Lys Lys
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&lt;210&gt; 5617

&lt;211&gt; 3480

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5617

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120

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240  
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<211> 1003

<212> PRT

<213> Homo sapiens

<400> 5618

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Asn	Glu	Met	Ser	Thr	Arg	Tyr	Tyr	Gln	Asn	Glu	Arg	Arg	His	Asn	Tyr
			20					25					30		
Thr	Thr	Pro	Lys	Ser	Phe	Leu	Glu	Gln	Ile	Ser	Leu	Phe	Lys	Asn	Leu
			35				40					45			
Leu	Lys	Lys	Lys	Gln	Asn	Glu	Val	Ser	Glu	Lys	Lys	Glu	Arg	Leu	Val
	50					55					60				
Asn	Gly	Ile	Gln	Lys	Leu	Lys	Thr	Thr	Ala	Ser	Gln	Val	Gly	Asp	Leu
65					70					75				80	
Lys	Ala	Arg	Leu	Ala	Ser	Gln	Glu	Ala	Glu	Leu	Gln	Leu	Arg	Asn	His
				85					90					95	
Asp	Ala	Glu	Ala	Leu	Ile	Thr	Lys	Ile	Gly	Leu	Gln	Thr	Glu	Lys	Val
			100					105					110		
Ser	Arg	Glu	Lys	Thr	Ile	Ala	Asp	Ala	Glu	Glu	Arg	Lys	Val	Thr	Ala
			115				120						125		
Ile	Gln	Thr	Glu	Val	Phe	Gln	Lys	Gln	Arg	Glu	Cys	Glu	Ala	Asp	Leu
	130					135					140				
Leu	Lys	Ala	Glu	Pro	Ala	Leu	Val	Ala	Ala	Thr	Ala	Ala	Leu	Asn	Thr
145					150					155				160	
Leu	Asn	Arg	Val	Asn	Leu	Ser	Glu	Leu	Lys	Ala	Phe	Pro	Asn	Pro	Pro
				165					170					175	
Ile	Ala	Val	Thr	Asn	Val	Thr	Ala	Ala	Val	Met	Val	Leu	Leu	Ala	Pro
			180					185					190		
Arg	Gly	Arg	Val	Pro	Lys	Asp	Arg	Ser	Trp	Lys	Ala	Ala	Lys	Val	Phe
		195					200						205		
Met	Gly	Lys	Val	Asp	Asp	Phe	Leu	Gln	Ala	Leu	Ile	Asn	Tyr	Asp	Lys
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Glu	His	Ile	Pro	Glu	Asn	Cys	Leu	Lys	Val	Val	Asn	Glu	His	Tyr	Leu
225					230					235				240	
Lys	Asp	Pro	Glu	Phe	Asn	Pro	Asn	Leu	Ile	Arg	Thr	Lys	Ser	Phe	Ala
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Ala	Ala	Gly	Leu	Cys	Ala	Trp	Val	Ile	Asn	Ile	Ile	Lys	Phe	Tyr	Glu
			260					265					270		
Val	Tyr	Cys	Asp	Val	Glu	Pro	Lys	Arg	Gln	Ala	Leu	Ala	Gln	Ala	Asn
			275				280					285			
Leu	Glu	Leu	Ala	Ala	Ala	Thr	Glu	Lys	Leu	Glu	Ala	Ile	Arg	Lys	Lys
	290					295					300				
Leu	Val	Val	Ser	Ala	Asn	Tyr	Asp	Ile	Glu	Lys	Ser	Glu	Lys	Ile	Arg
305					310						315			320	
Trp	Gly	Gln	Ser	Ile	Lys	Ser	Phe	Glu	Ala	Gln	Glu	Lys	Thr	Leu	Cys
				325					330					335	
Gly	Asp	Val	Leu	Leu	Thr	Ala	Ala	Phe	Val	Ser	Tyr	Val	Gly	Pro	Phe



			340					345					350				
Thr	Arg	Gln	Tyr	Arg	Gln	Glu	Leu	Val	His	Cys	Lys	Trp	Val	Pro	Phe		
		355					360						365				
Leu	Gln	Gln	Lys	Val	Ser	Ile	Pro	Leu	Thr	Glu	Gly	Leu	Asp	Leu	Ile		
	370					375					380						
Ser	Met	Leu	Thr	Asp	Asp	Ala	Thr	Ile	Ala	Ala	Trp	Asn	Asn	Glu	Gly		
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				405					410					415			
Cys	Glu	Arg	Trp	Pro	Leu	Val	Ile	Asp	Pro	Gln	Gln	Gln	Gly	Ile	Lys		
			420					425					430				
Trp	Ile	Lys	Asn	Lys	Tyr	Gly	Met	Asp	Leu	Lys	Val	Thr	His	Leu	Gly		
		435					440						445				
Gln	Lys	Gly	Phe	Leu	Asn	Ala	Ile	Glu	Thr	Ala	Leu	Ala	Phe	Gly	Asp		
	450					455					460						
Val	Ile	Leu	Ile	Glu	Asn	Leu	Glu	Glu	Thr	Ile	Asp	Pro	Val	Leu	Asp		
465					470					475					480		
Pro	Leu	Leu	Gly	Arg	Asn	Thr	Ile	Lys	Lys	Gly	Lys	Tyr	Ile	Arg	Ile		
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Thr	Lys	Leu	Ala	Asn	Pro	His	Tyr	Lys	Pro	Glu	Leu	Gln	Ala	Gln	Thr		
		515					520						525				
Thr	Leu	Leu	Asn	Phe	Thr	Val	Thr	Glu	Asp	Gly	Leu	Glu	Ala	Gln	Leu		
	530					535					540						
Leu	Ala	Glu	Val	Val	Ser	Ile	Glu	Arg	Pro	Asp	Leu	Glu	Lys	Leu	Lys		
545					550					555					560		
Leu	Val	Leu	Thr	Lys	His	Gln	Asn	Asp	Phe	Lys	Ile	Glu	Leu	Lys	Tyr		
				565					570					575			
Leu	Glu	Asp	Asp	Leu	Leu	Leu	Arg	Leu	Ser	Ala	Ala	Glu	Gly	Ser	Phe		
			580					585					590				
Leu	Asp	Asp	Thr	Lys	Leu	Val	Glu	Arg	Leu	Glu	Ala	Thr	Lys	Thr	Thr		
		595					600						605				
Val	Ala	Glu	Ile	Glu	His	Lys	Val	Ile	Glu	Ala	Lys	Glu	Asn	Glu	Arg		
	610					615					620						
Lys	Ile	Asn	Glu	Ala	Arg	Glu	Cys	Tyr	Arg	Pro	Val	Ala	Ala	Arg	Ala		
625					630					635					640		
Ser	Leu	Leu	Tyr	Phe	Val	Ile	Asn	Asp	Leu	Gln	Lys	Ile	Asn	Pro	Leu		
				645					650					655			
Tyr	Gln	Phe	Ser	Leu	Lys	Ala	Phe	Asn	Val	Leu	Phe	His	Arg	Ala	Ile		
			660					665					670				
Glu	Gln	Ala	Asp	Lys	Val	Glu	Asp	Met	Gln	Gly	Arg	Ile	Ser	Ile	Leu		
		675					680						685				
Met	Glu	Ser	Ile	Thr	His	Ala	Val	Phe	Leu	Tyr	Thr	Ser	Gln	Ala	Leu		
	690					695							700				
Phe	Glu	Lys	Asp	Lys	Leu	Thr	Phe	Leu	Ser	Gln	Met	Ala	Phe	Gln	Ile		
705					710					715					720		
Leu	Leu	Arg	Lys	Lys	Glu	Ile	Asp	Pro	Leu	Glu	Leu	Asp	Phe	Leu	Leu		
				725					730					735			
Arg	Phe	Thr	Val	Glu	His	Thr	His	Leu	Ser	Pro	Val	Asp	Phe	Leu	Thr		
		740						745					750				
Ser	Gln	Ser	Trp	Ser	Ala	Ile	Lys	Ala	Ile	Ala	Val	Met	Glu	Glu	Phe		
		755					760						765				
Arg	Gly	Ile	Asp	Arg	Asp	Val	Glu	Gly	Ser	Ala	Lys	Gln	Trp	Arg	Lys		

770	775	780
Trp Val Glu Ser Glu Cys Pro Glu Lys Glu Lys Leu Pro Gln Glu Trp		
785	790	795
Lys Lys Lys Ser Leu Ile Gln Lys Leu Ile Leu Leu Arg Ala Met Arg		800
	805	810
Pro Asp Arg Met Thr Tyr Ala Leu Arg Asn Phe Val Glu Glu Lys Leu		815
	820	825
Gly Ala Lys Tyr Val Glu Arg Thr Arg Leu Asp Leu Val Lys Ala Phe		830
	835	840
Glu Glu Ser Ser Pro Ala Thr Pro Ile Phe Phe Ile Leu Ser Pro Gly		845
	850	855
Val Asp Ala Leu Lys Asp Leu Glu Ile Leu Gly Lys Arg Leu Gly Phe		860
865	870	875
Thr Ile Asp Ser Gly Lys Phe His Asn Val Ser Leu Gly Gln Gly Gln		880
	885	890
Glu Thr Val Ala Glu Val Ala Leu Glu Lys Ala Ser Lys Gly Gly His		895
	900	905
Trp Val Ile Leu Gln Asn Val His Leu Val Ala Lys Trp Leu Gly Thr		910
	915	920
Leu Glu Lys Leu Leu Glu Arg Phe Ser Gln Gly Ser His Arg Asp Tyr		925
	930	935
Arg Val Phe Met Ser Ala Glu Ser Ala Pro Thr Pro Asp Glu His Ile		940
945	950	955
Ile Pro Gln Gly Leu Leu Glu Asn Ser Ile Lys Ile Thr Asn Glu Pro		960
	965	970
Pro Thr Gly Met Leu Ala Asn Leu His Ala Ala Leu Tyr Asn Phe Asp		975
	980	985
Gln Val Arg Lys Arg Ser Arg Leu Gly Arg Gln		990
	995	1000

&lt;210&gt; 5619

&lt;211&gt; 1219

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5619

```

aagccggaga gctggagctt tgaagccacc ccggtcaaag gatgctgagt ccggagcgcc
60
tagccctacc ggactacgag tatctggctc agcgacatgt cctcacctac atggaggatg
120
cagtgtgcca gctgctagaa aacaggggaag atattagcca atatggaatt gccaggttct
180
tactgaata ttttaacagt gtatgccagg gaacacacat tctctttcga gaattcagct
240
tcgtccaagc cccccccac aatagggtat cattttttacg ggccttctgg agatgcttcc
300
gaactgtggg caaaaatggc gatttgctga ccatgaaaga atatcactgt ttgctgcaat
360
tactgtgtcc tgatttcccg ctggagctca ctcagaaagc agccaggatt gtgctcatgg
420
acgatgcat ggactgcttg atgtcttttt cagatttcct ctttgccttc cagatccagt
480
tttactactc agaattcctg gacagtgtgg ctgccatcta tgaggacctg ctgtcaggca
540

```

agaaccccaa cacagtgatt gtgccgacgt cgtccagtgg gcagcacgcg caacgacctg  
 600  
 ccttggggcg ggccggcacg ctggagggcg tggaggcgtc gctgttctac cagtgtctgg  
 660  
 aaaacctgtg tgatcggcac aagtacagct gcccaccccc agcacttgtc aaagaggccc  
 720  
 tcagcaatgt tcagagactg acctttctatg gattcctcat ggctctctca aagcacctg  
 780  
 gaatcaacca agccctcggt aagtcagagc taagcagccg tcagcctctc ctgccgcaca  
 840  
 acacagggag cagctggcct ctgttagcaa cacggctcca gaggggaagg ggcattacca  
 900  
 tctctgcctt gacttcccag ggccggactc aatcccaggg agcaggaata tggcgacaaa  
 960  
 acatggctct tacacattcc catggtaggg gacagccctc cctgcctgca gccctgcccc  
 1020  
 aacatgaaac cacctcccca tagcagaagc gccagcccc tcctcagaga accccagctc  
 1080  
 tgctttgggg agcagcctgc aggtcgggca gacacaggac tatttactca gtgacgctag  
 1140  
 agattatata tcagagagac ctgaatccca ttataaaca aggcaaaggt gtgtctgcgg  
 1200  
 agaccttttt tccaagctg  
 1219

&lt;210&gt; 5620

&lt;211&gt; 333

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5620

Met	Leu	Ser	Pro	Glu	Arg	Leu	Ala	Leu	Pro	Asp	Tyr	Glu	Tyr	Leu	Ala
1				5					10					15	
Gln	Arg	His	Val	Leu	Thr	Tyr	Met	Glu	Asp	Ala	Val	Cys	Gln	Leu	Leu
			20					25					30		
Glu	Asn	Arg	Glu	Asp	Ile	Ser	Gln	Tyr	Gly	Ile	Ala	Arg	Phe	Phe	Thr
			35				40					45			
Glu	Tyr	Phe	Asn	Ser	Val	Cys	Gln	Gly	Thr	His	Ile	Leu	Phe	Arg	Glu
	50					55				60					
Phe	Ser	Phe	Val	Gln	Ala	Thr	Pro	His	Asn	Arg	Val	Ser	Phe	Leu	Arg
65					70				75					80	
Ala	Phe	Trp	Arg	Cys	Phe	Arg	Thr	Val	Gly	Lys	Asn	Gly	Asp	Leu	Leu
				85				90					95		
Thr	Met	Lys	Glu	Tyr	His	Cys	Leu	Leu	Gln	Leu	Leu	Cys	Pro	Asp	Phe
			100					105					110		
Pro	Leu	Glu	Leu	Thr	Gln	Lys	Ala	Ala	Arg	Ile	Val	Leu	Met	Asp	Asp
		115					120					125			
Ala	Met	Asp	Cys	Leu	Met	Ser	Phe	Ser	Asp	Phe	Leu	Phe	Ala	Phe	Gln
	130					135					140				
Ile	Gln	Phe	Tyr	Tyr	Ser	Glu	Phe	Leu	Asp	Ser	Val	Ala	Ala	Ile	Tyr
145					150				155					160	
Glu	Asp	Leu	Leu	Ser	Gly	Lys	Asn	Pro	Asn	Thr	Val	Ile	Val	Pro	Thr
				165				170						175	
Ser	Ser	Ser	Gly	Gln	His	Arg	Gln	Arg	Pro	Ala	Leu	Gly	Gly	Ala	Gly

<400> 5622																
Met	Ala	Trp	Leu	Gly	Arg	Pro	Gly	Ser	His	Gly	Leu	Tyr	Asn	Lys	Tyr	
1				5					10					15		
Ile	Cys	Gly	Ala	Gly	Ser	Pro	Gln	Pro	Gly	Arg	Ala	Thr	Ala	Thr	Val	
			20					25					30			
Gln	Ser	Ser	Phe	Arg	Ala	Pro	Ser	Phe	Met	Gly	Pro	Leu	Ala	Thr	Phe	

```

      35              40              45
Leu Ser Ala Arg Leu Ala Ser Ile Ser Arg Arg Arg Ser Ser Arg Phe
      50              55              60
Phe Arg Ala Ser Ser Ala Leu Thr Cys Pro Gly Cys Trp Asp Val Gln
      65              70              75              80
Thr Gly

```

<210> 5623  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

```

<400> 5623
nctggaagaa ctcgtcatgc tctttgtagc gtggtgcttc tgttgctcac aggacaactt
60
gcctttgatg attttcaaga gagttgtgct atgatgtggc aaaagtatgc aggaagcagg
120
cggccaatgc ctctgggagc aaggatcctt ttccacggtg tgttctatgc cgggggcttt
180
gccatttgtt attacctcat tcaaaagttt cattccaggg ctttatatta caagttggca
240
gtggagcagc tgcagagcca tcccgaggca caggaagctc tgggccctcc tctcaacatc
300
cattatctca agctcatcga cagggaaaac ttcgtggaca ttgttgatgc caagttg
357

```

<210> 5624  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

```

<400> 5624
Met Trp Gln Lys Tyr Ala Gly Ser Arg Arg Ser Met Pro Leu Gly Ala
1              5              10              15
Arg Ile Leu Phe His Gly Val Phe Tyr Ala Gly Gly Phe Ala Ile Val
      20              25              30
Tyr Tyr Leu Ile Gln Lys Phe His Ser Arg Ala Leu Tyr Tyr Lys Leu
      35              40              45
Ala Val Glu Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu Gly
      50              55              60
Pro Pro Leu Asn Ile His Tyr Leu Lys Leu Ile Asp Arg Glu Asn Phe
      65              70              75              80
Val Asp Ile Val Asp Ala Lys Leu
      85

```

<210> 5625  
 <211> 1017  
 <212> DNA  
 <213> Homo sapiens

```

<400> 5625
gccgactcgt ggtacctggc gcttctgggc ttcgctgagc acttccgcac ttccagcccg
60

```

cccaaaatcc gcctgtgcgt gcactgcctg caggccgtgt tccccttcaa gccgccgcag  
 120  
 cgcacgcagg cccgtacaca cctgcagctg ggctccgttc tctatcacca caccaagaac  
 180  
 agcgagcagg cgcgagacca cctggagaag gcgtgggtga tatcacagca aatcccacag  
 240  
 ttcgaagatg ttaaatttga agcagcaagt ctgttgtctg aattgtactg tcaagagaat  
 300  
 tccgttgatg cagcaaagcc gctgctgcgg aaggcgatcc agatctcaca gcagacccca  
 360  
 tattggcact gccgcctgct cttccagctc gctcaactgc acacgcttga gaaggacctg  
 420  
 gtgtcggcct gtgacctcct ggggtgtaggg gccgagtacg cccgggtggt gggatctgaa  
 480  
 tacacacggg cgctgttctt cctcagcaag gggatgctgc tgctgatgga gcgaaagctg  
 540  
 caggaggtgc acccgctgct gacctctgc gggcagatcg tggagaactg gcaggggaac  
 600  
 cccatccaga aggagtcgct gcgtgtcttc ttctgggtgc tccaggtcac ccactatctg  
 660  
 gatgccgggc aggtgaagag cgtgaagccg tgtctgaagc agctgcagca gtgcatccag  
 720  
 accatctcca cactgcacga tgatgagatc ctgcccagca accccgctga cctcttccac  
 780  
 tggctgcca aggagcacat gtgtgtgctt gtctacctgg tgactgtgat gcactccatg  
 840  
 caggccggct acctggagaa ggcgagaaag tacacggaca aggccctcat gcagctggag  
 900  
 aagctcaaga tgctggactg cagccccatc ctgtcactct tccaagtgat cctgctggag  
 960  
 cacatcatca tgtgccgcct tgtcacgggt cacaaggcca cggcgctgca ggagatc  
 1017

&lt;210&gt; 5626

&lt;211&gt; 339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5626

Ala	Asp	Ser	Trp	Tyr	Leu	Ala	Leu	Leu	Gly	Phe	Ala	Glu	His	Phe	Arg
1				5					10					15	
Thr	Ser	Ser	Pro	Pro	Lys	Ile	Arg	Leu	Cys	Val	His	Cys	Leu	Gln	Ala
			20					25					30		
Val	Phe	Pro	Phe	Lys	Pro	Pro	Gln	Arg	Ile	Glu	Ala	Arg	Thr	His	Leu
		35					40					45			
Gln	Leu	Gly	Ser	Val	Leu	Tyr	His	His	Thr	Lys	Asn	Ser	Glu	Gln	Ala
		50				55					60				
Arg	Ser	His	Leu	Glu	Lys	Ala	Trp	Leu	Ile	Ser	Gln	Gln	Ile	Pro	Gln
65					70					75				80	
Phe	Glu	Asp	Val	Lys	Phe	Glu	Ala	Ala	Ser	Leu	Leu	Ser	Glu	Leu	Tyr
				85					90					95	
Cys	Gln	Glu	Asn	Ser	Val	Asp	Ala	Ala	Lys	Pro	Leu	Leu	Arg	Lys	Ala
			100						105					110	
Ile	Gln	Ile	Ser	Gln	Gln	Thr	Pro	Tyr	Trp	His	Cys	Arg	Leu	Leu	Phe

115	120	125
Gln Leu Ala Gln Leu His Thr Leu Glu Lys Asp Leu Val Ser Ala Cys		
130	135	140
Asp Leu Leu Gly Val Gly Ala Glu Tyr Ala Arg Val Val Gly Ser Glu		
145	150	155
Tyr Thr Arg Ala Leu Phe Leu Leu Ser Lys Gly Met Leu Leu Leu Met		
165	170	175
Glu Arg Lys Leu Gln Glu Val His Pro Leu Leu Thr Leu Cys Gly Gln		
180	185	190
Ile Val Glu Asn Trp Gln Gly Asn Pro Ile Gln Lys Glu Ser Leu Arg		
195	200	205
Val Phe Phe Leu Val Leu Gln Val Thr His Tyr Leu Asp Ala Gly Gln		
210	215	220
Val Lys Ser Val Lys Pro Cys Leu Lys Gln Leu Gln Gln Cys Ile Gln		
225	230	235
Thr Ile Ser Thr Leu His Asp Asp Glu Ile Leu Pro Ser Asn Pro Ala		
245	250	255
Asp Leu Phe His Trp Leu Pro Lys Glu His Met Cys Val Leu Val Tyr		
260	265	270
Leu Val Thr Val Met His Ser Met Gln Ala Gly Tyr Leu Glu Lys Ala		
275	280	285
Gln Lys Tyr Thr Asp Lys Ala Leu Met Gln Leu Glu Lys Leu Lys Met		
290	295	300
Leu Asp Cys Ser Pro Ile Leu Ser Ser Phe Gln Val Ile Leu Leu Glu		
305	310	315
His Ile Ile Met Cys Arg Leu Val Thr Gly His Lys Ala Thr Ala Leu		
325	330	335
Gln Glu Ile		

&lt;210&gt; 5627

&lt;211&gt; 1401

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5627

```

nctctcacac tgtggaattc tctctatcag cctcaaagtc cagatttgga aagggagtct
60
cagcgagggg cagcagctgg cccaaccggg aggcagagcg gcaactgaac tctagccgga
120
aagagccagg gttatgtgca catgggaggt ggggaggaca ggggctgtat gtgaccctca
180
catctgttcc tcgcgcccca gatggcttct gctgcctgct ccatggaccc catcgacagc
240
tttgagctcc tggatctcct gtttgaccgg caggacggca tcctgagaca cgtggagctg
300
ggcgagggct ggggtcacgt caaggaccag gtcttgccaa accccgactc tgacgacttc
360
ctcagctcca tcctgggctc tggagactca ctgcccagct cccactctg gtcccccgaa
420
ggcagtgata gtggcatctc cgaagacctc ccctccgacc ccaggacac ccctccacgc
480
agcggaccag ccacctcccc cgccggctgc catcctgccc agcctggcaa ggggacctgc
540

```

ctctcctatc atcctggcaa ctcttgctcc accacaaccc cagggccagt gatccaacaa  
 600  
 cagcatcacc tggggggcctc ctacctcctg cgacctgggg ctggggcactg tcaggagctg  
 660  
 gtgctcaccg aggatgagaa gaagctgctg gctaaagaag gcatcacctc gccactcag  
 720  
 ctgccccctca ctaagtacga ggagcgagtg ctgaaaaaaaa tccgccggaa aatccggaac  
 780  
 aagcagtcgg cgcaagaaag caggaagaag aagaaggaat atatcgatgg cctggagact  
 840  
 cggctcctgtt gctgtccttt gccctcatca tcctcccctc catcagccct tttggcccca  
 900  
 acaaaaccga gagccttggg gactttgcgc ctgtacgagt gttctccaga actttgcaca  
 960  
 acgatgctgc ctcccgctg gctgctgatg ctgtgccagg ctccgaggcc ccaggacccc  
 1020  
 gacccgaggc tgacacaacc cgagaagagt ctccaggaag ccccggggca gactggggct  
 1080  
 tccaggacac cgcaacctg accaattcga cggaggagct ggacaacgcc accctgggtcc  
 1140  
 tgaggaatgc aacagagggg ctggggccagg tcgccctgct ggactgggtg gcgcctgggc  
 1200  
 cgagcactgg ctcaggacgt gcagggctgg aggcggcggg agacgagctg tgagccccac  
 1260  
 caggactatg ctcccaggcc cctctgcccc ggggtgcctt ggggatgctg cactggggcag  
 1320  
 ctaccacact ggggatggga cgtgaggcca agaccccagc agagatgcca gaatggggga  
 1380  
 ggcacagctc atagccacac a  
 1401

&lt;210&gt; 5628

&lt;211&gt; 299

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5628

Met	Ala	Ser	Ala	Ala	Cys	Ser	Met	Asp	Pro	Ile	Asp	Ser	Phe	Glu	Leu
1				5					10					15	
Leu	Asp	Leu	Leu	Phe	Asp	Arg	Gln	Asp	Gly	Ile	Leu	Arg	His	Val	Glu
		20						25					30		
Leu	Gly	Glu	Gly	Trp	Gly	His	Val	Lys	Asp	Gln	Val	Leu	Pro	Asn	Pro
		35				40						45			
Asp	Ser	Asp	Asp	Phe	Leu	Ser	Ser	Ile	Leu	Gly	Ser	Gly	Asp	Ser	Leu
	50					55					60				
Pro	Ser	Ser	Pro	Leu	Trp	Ser	Pro	Glu	Gly	Ser	Asp	Ser	Gly	Ile	Ser
65				70					75					80	
Glu	Asp	Leu	Pro	Ser	Asp	Pro	Gln	Asp	Thr	Pro	Pro	Arg	Ser	Gly	Pro
			85					90						95	
Ala	Thr	Ser	Pro	Ala	Gly	Cys	His	Pro	Ala	Gln	Pro	Gly	Lys	Gly	Pro
			100					105					110		
Cys	Leu	Ser	Tyr	His	Pro	Gly	Asn	Ser	Cys	Ser	Thr	Thr	Thr	Pro	Gly
		115					120					125			
Pro	Val	Ile	Gln	Gln	Gln	His	His	Leu	Gly	Ala	Ser	Tyr	Leu	Leu	Arg



```

      130              135              140
Pro Gly Ala Gly His Cys Gln Glu Leu Val Leu Thr Glu Asp Glu Lys
145              150              155              160
Lys Leu Leu Ala Lys Glu Gly Ile Thr Leu Pro Thr Gln Leu Pro Leu
      165              170              175
Thr Lys Tyr Glu Glu Arg Val Leu Lys Lys Ile Arg Arg Lys Ile Arg
      180              185              190
Asn Lys Gln Ser Ala Gln Glu Ser Arg Lys Lys Lys Lys Glu Tyr Ile
      195              200              205
Asp Gly Leu Glu Thr Arg Ser Cys Cys Cys Pro Leu Pro Ser Ser Ser
      210              215              220
Ser Pro Pro Ser Ala Leu Leu Ala Pro Thr Lys Pro Arg Ala Leu Gly
225              230              235              240
Thr Leu Arg Leu Tyr Glu Cys Ser Pro Glu Leu Cys Thr Thr Met Leu
      245              250              255
Pro Pro Ala Trp Leu Leu Met Leu Cys Gln Ala Pro Arg Pro Gln Asp
      260              265              270
Pro Asp Pro Arg Leu Thr Gln Pro Glu Lys Ser Leu Gln Glu Ala Pro
      275              280              285
Gly Gln Thr Gly Ala Ser Arg Thr Pro Arg Thr
      290              295

```

<210> 5629  
 <211> 428  
 <212> DNA  
 <213> Homo sapiens

<400> 5629  
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 60  
 aacagaagat aaagctgggg cttacagaga atgtacaact tggcccaggg cacaccagtt  
 120  
 agccatcagg ggcagngctg ctattcaggt ctgggactgt gggactccag agcccatgtt  
 180  
 ttttacgagg atgccatact gccacaatgg atgggtgtctt tatctcctga tatatgattg  
 240  
 tgtgttggga ggcgtggggg ggcagctgga agaattggaga ggcataatttg tggaggatct  
 300  
 tccccattc tctgctaccc tctcttggag ctcccagttc catctgagaa attatctact  
 360  
 ctgagaaatc gtcacaacac agcatgggtg tgagtgcagt ggcagaagcc tgtgcctggt  
 420  
 tgtatggg  
 428

<210> 5630  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 5630  
 Met Asp Gly Arg His Thr Gln Ser Pro Leu Thr Glu Asp Lys Ala Gly  
 1 5 10 15  
 Ala Tyr Arg Glu Cys Thr Thr Trp Pro Arg Ala His Gln Leu Ala Ile

	20		25		30
Arg Gly Xaa Ala Ala Ile Gln Val Trp Asp Cys Gly Thr Pro Glu Pro					
35		40		45	
Met Phe Phe Thr Arg Met Pro Tyr Cys His Asn Gly Trp Cys Leu Tyr					
50		55		60	
Leu Leu Ile Tyr Asp Cys Val Leu Gly Gly Val Gly Trp Gln Leu Glu					
65		70		75	
Glu Trp Arg Gly Ile Phe Val Glu Asp Leu Pro Pro Phe Ser Ala Thr					
	85		90		95
Leu Ser Trp Ser Ser Gln Phe His Leu Arg Asn Tyr Leu Leu					
100		105		110	

&lt;210&gt; 5631

&lt;211&gt; 783

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5631

acgcgtgccc agcacatgtg tgcacacgca gatgcaggag agaacacaca ccaccgtctc  
 60  
 ttgacacag tgtgcccttg tccggcccgg ggggctcatc tctccttcac ggagagaatt  
 120  
 ctttttatta cgagtgaaca gatgaactaa ggtaagcggg tctcagcctt ccgctgggtg  
 180  
 agcatctcca cgcagggcct cagccccgtc ctggccttgc ctgaggactg caccatgggt  
 240  
 gttccttggg catggaggag gcagcaggaa ggggtgacag gagcaggagc aggtgcaggg  
 300  
 cacctcacac cacaggcctc cccacacctc gagctgcaa cagccaagac tcctggcgag  
 360  
 gccgggagag gaggggtgag agggaaggag ggtctctgtg aaagcaagcc ccacccccag  
 420  
 agcagagcag agaccaggt ctgcaaata caccctcccc ccacgagttc ctcttttgag  
 480  
 gccagcagca cccgagggag ggcaggggct gcacagagac cagagaaagg aaaacccac  
 540  
 agaagaaaac tcaaagcatc agtcccatgc gtgtctgctg aacgagtga tgggcccacaa  
 600  
 ggctcttctc taaaaacggc acgcatccat ccgacagggg gccacaggac acggccgggg  
 660  
 ccgtctgcgt ctgtgcctgt gcagcccaca ccagtgcagc ccggggccct ctcagacctc  
 720  
 accacacgcg tgcccagcac atgtgtgcac acgcagatgc aggagagaac acacaccacc  
 780  
 gtc  
 783

&lt;210&gt; 5632

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5632

Met Gly Val Pro Trp Ala Trp Arg Arg Gln Gln Glu Gly Val Thr Gly

1	5	10	15
Ala Gly Ala Gly Ala Gly His Leu Thr Pro Gln Ala Ser Pro Thr Ser			
	20	25	30
Glu Leu Pro Thr Ala Lys Thr Pro Gly Glu Ala Gly Arg Gly Gly Val			
	35	40	45
Arg Gly Lys Glu Gly Leu Cys Glu Ser Lys Pro His Pro Gln Ser Arg			
	50	55	60
Ala Glu Thr Gln Val Cys Lys Ser His Pro Pro Pro Thr Ser Ser Ser			
65	70	75	80
Phe Glu Ala Ser Ser Thr Arg Gly Arg Ala Gly Ala Ala Gln Arg Pro			
	85	90	95
Glu Lys Gly Lys Pro His Arg Arg Lys Leu Lys Ala Ser Val Pro Cys			
	100	105	110
Val Ser Ala Glu Arg Val Asn Gly Pro Lys Gly Ser Ser Leu Gln Thr			
	115	120	125
Ala Arg Ile His Pro Thr Gly Gly His Arg Thr Arg Pro Gly Pro Ser			
	130	135	140
Ala Ser Val Pro Val Gln Pro Thr Pro Val Gln Pro Gly Ala Leu Ser			
145	150	155	160
Asp Leu Thr Thr Arg Val Pro Ser Thr Cys Val His Thr Gln Met Gln			
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Glu Arg Thr His Thr Thr Val			
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&lt;210&gt; 5633

&lt;211&gt; 2181

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5633

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&lt;210&gt; 5634

&lt;211&gt; 289

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5634

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Phe Asn Phe Pro Asp Pro Tyr Ser Lys Val Lys Gln Arg Glu Asn Gly
      35           40           45
Val Ala Leu Arg Cys Phe Pro Gly Val Val Arg Ser Leu Asp Ala Leu
      50           55           60
Gly Trp Glu Glu Arg Gln Leu Ala Leu Val Lys Gly Leu Leu Ala Gly
65           70           75           80
Asn Val Phe Asp Trp Gly Ala Lys Ala Val Ser Ala Val Leu Glu Ser
      85           90           95
Asp Pro Tyr Phe Gly Phe Glu Glu Ala Lys Arg Lys Leu Gln Glu Arg
      100          105          110
Pro Trp Leu Val Asp Ser Tyr Ser Glu Trp Leu Gln Arg Leu Lys Gly
      115          120          125
Pro Pro His Lys Cys Ala Leu Ile Phe Ala Asp Asn Ser Gly Ile Asp
      130          135          140
Ile Ile Leu Gly Val Phe Pro Phe Val Arg Glu Leu Leu Leu Arg Gly
145          150          155          160
Thr Glu Val Ile Leu Ala Cys Asn Ser Gly Pro Ala Leu Asn Asp Val
      165          170          175
Thr His Ser Glu Ser Leu Ile Val Ala Glu Arg Ile Ala Gly Met Asp
      180          185          190
Pro Val Val His Ser Ala Leu Gln Glu Glu Arg Leu Leu Leu Val Gln
      195          200          205
Thr Gly Ser Ser Ser Pro Cys Leu Asp Leu Ser Arg Leu Asp Lys Gly
      210          215          220
Leu Ala Ala Leu Val Arg Glu Arg Gly Ala Asp Leu Val Val Ile Glu
225          230          235          240
Gly Met Gly Arg Ala Val His Thr Asn Tyr His Ala Ala Leu Arg Cys
      245          250          255
Glu Ser Leu Lys Leu Ala Val Ile Lys Asn Ala Trp Leu Ala Glu Arg
      260          265          270
Leu Gly Gly Arg Leu Phe Ser Val Ile Phe Lys Tyr Glu Val Pro Ala
      275          280          285
Glu

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<210> 5635

<211> 614

<212> DNA

<213> Homo sapiens

<400> 5635

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180

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<210> 5636

<211> 204

<212> PRT

<213> Homo sapiens

<400> 5636

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			20					25					30		
Asn	Thr	Thr	Thr	Lys	Phe	Arg	Lys	Ala	Leu	Ile	Asn	Gly	Asp	Glu	Asn
			35				40					45			
Leu	Ala	Cys	Gln	Ile	Tyr	Glu	Asn	Asn	Pro	Gln	Leu	Lys	Glu	Ser	Leu
	50					55				60					
Asp	Pro	Asn	Thr	Ser	Tyr	Gly	Glu	Pro	Tyr	Gln	His	Asn	Thr	Pro	Leu
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His	Tyr	Ala	Ala	Arg	His	Gly	Met	Asn	Lys	Ile	Leu	Gly	Asp	Asp	Phe
				85					90					95	
Arg	Arg	Ala	Asp	Cys	Leu	Gln	Met	Ile	Leu	Lys	Trp	Lys	Gly	Ala	Lys
			100					105					110		
Leu	Asp	Gln	Gly	Glu	Tyr	Glu	Arg	Ala	Ala	Ile	Asp	Ala	Val	Asp	Asn
		115					120					125			
Lys	Lys	Asn	Thr	Pro	Leu	His	Tyr	Ala	Ala	Ala	Ser	Gly	Met	Lys	Ala
		130				135					140				
Cys	Val	Glu	Lys	His	Gly	Gly	Asp	Leu	Phe	Ala	Glu	Asn	Glu	Asn	Lys
145					150					155				160	
Asp	Thr	Pro	Cys	Asp	Cys	Ala	Glu	Lys	Gln	His	His	Lys	Asp	Leu	Ala
				165					170					175	
Leu	Asn	Leu	Glu	Ser	Gln	Met	Val	Phe	Ser	Arg	Asp	Pro	Glu	Ala	Glu
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Glu	Ile	Glu	Ala	Glu	Tyr	Ala	Ala	Leu	Asp	Lys	Arg				
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<210> 5637

<211> 825

<212> DNA

<213> Homo sapiens

&lt;400&gt; 5637

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180  
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240  
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360  
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825

&lt;210&gt; 5638

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5638

Met	Pro	Cys	Gly	Asn	Arg	Ser	Gln	Asp	Pro	Val	Glu	Asn	Pro	Arg	Cys
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Leu	Asn	Ile	Asn	Lys	Ser	Asp	Ser	His	Ser	Pro	Thr	Val	Leu	Ala	Ser
			20					25					30		
Leu	Thr	Gly	Ala	Arg	Trp	Phe	Cys	Asp	Pro	Ser	Gln	Ala	His	Ala	Pro
		35					40					45			
Leu	Ala	Gly	Arg	Leu	Ala	Arg	Ala	Pro	Leu	Trp	Leu	Ala	Cys	Gly	Asp
		50				55				60					
Thr	Trp	Ala	Leu	Leu	His	Val	Pro	Thr	Arg	Ala	Val	Ala	Gly	Ser	Lys
65					70				75					80	
Glu	Ala	Gln	Pro	Arg	Pro	Ala	Cys	Val	Asp	Pro	Ala	Gly	Leu	Arg	Ala
			85					90					95		
Pro	Glu	Leu	Leu	Thr	Val	Ser	Glu	Pro	Gly	Cys	Pro	Ala	Pro	Arg	Arg
		100						105					110		
Pro	Pro	Ser	Ser	Cys	Pro	Ala	Trp	Asp	Pro	Ser	Ala	Val	Cys	Leu	Leu
		115					120					125			
Asn	Gln	Gly	Val												

130

&lt;210&gt; 5639

&lt;211&gt; 2433

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5639

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240  
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300  
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&lt;210&gt; 5640

&lt;211&gt; 540

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5640

Met	Cys	Pro	Ser	Pro	Glu	Arg	Gln	Glu	Asp	Gly	Ala	Arg	Lys	Asp	Phe
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Ser	Ser	Arg	Leu	Ala	Ala	Gly	Pro	Thr	Phe	Gln	His	Phe	Leu	Lys	Ser
		20					25						30		
Ala	Ser	Ala	Pro	Gln	Glu	Lys	Leu	Ser	Ser	Glu	Val	Glu	Asp	Pro	Pro
		35					40					45			
Pro	Tyr	Leu	Met	Met	Asp	Glu	Leu	Leu	Gly	Arg	Gln	Arg	Lys	Val	Tyr
	50					55					60				
Leu	Glu	Thr	Tyr	Gly	Cys	Gln	Met	Asn	Val	Asn	Asp	Thr	Glu	Ile	Ala
65					70					75				80	
Trp	Ser	Ile	Leu	Gln	Lys	Ser	Gly	Tyr	Leu	Arg	Pro	Val	Thr	Ser	Lys

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 Ala Asp Val Ile Leu Leu Val Thr Cys Ser Ile Arg Glu Lys Ala Glu  
 100 105 110  
 Gln Thr Ile Trp Asn Arg Leu His Gln Leu Lys Ala Leu Lys Thr Arg  
 115 120 125  
 Arg Pro Arg Ser Arg Val Pro Leu Arg Ile Gly Ile Leu Gly Cys Met  
 130 135 140  
 Ala Glu Arg Leu Lys Glu Glu Ile Leu Asn Arg Glu Lys Met Val Asp  
 145 150 155 160  
 Ile Leu Ala Gly Pro Asp Ala Tyr Arg Asp Leu Pro Arg Leu Leu Ala  
 165 170 175  
 Val Ala Glu Ser Gly Gln Gln Ala Ala Asn Val Leu Leu Ser Leu Asp  
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 Glu Thr Tyr Ala Asp Val Met Pro Val Gln Thr Ser Ala Ser Ala Thr  
 195 200 205  
 Ser Ala Phe Val Ser Ile Met Arg Gly Cys Asp Asn Met Cys Ser Tyr  
 210 215 220  
 Cys Ile Val Pro Phe Thr Arg Gly Arg Glu Arg Ser Arg Pro Ile Ala  
 225 230 235 240  
 Ser Ile Leu Glu Glu Val Lys Lys Leu Ser Glu Gln Gly Leu Lys Glu  
 245 250 255  
 Val Thr Leu Leu Gly Gln Asn Val Asn Ser Phe Arg Asp Asn Ser Glu  
 260 265 270  
 Val Gln Phe Asn Ser Ala Val Pro Thr Asn Leu Ser Arg Gly Phe Thr  
 275 280 285  
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 Asp Gln Val Ser Arg Val Asp Pro Glu Met Arg Ile Arg Phe Thr Ser  
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 Ser Arg Val Leu Glu Ala Met Arg Arg Gly Tyr Ser Arg Glu Ala Tyr  
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 Val Glu Leu Val His His Ile Arg Glu Ser Ile Pro Gly Val Ser Leu  
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 385 390 395 400  
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 Leu Phe Ala Tyr Ser Met Arg Gln Lys Thr Arg Ala Tyr His Arg Leu  
 420 425 430  
 Lys Asp Asp Val Pro Glu Glu Val Lys Leu Arg Arg Leu Glu Glu Leu  
 435 440 445  
 Ile Thr Ile Phe Arg Glu Glu Ala Thr Lys Ala Asn Gln Thr Ser Val  
 450 455 460  
 Gly Cys Thr Gln Leu Val Leu Val Glu Gly Leu Ser Lys Arg Ser Ala  
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&lt;210&gt; 5644

&lt;211&gt; 202

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5644

Trp	Glu	Gln	Asp	Phe	Gly	His	Pro	Val	Ser	Gln	Glu	Ser	Ser	Trp	Ser
1				5					10					15	
Gln	Glu	Tyr	Ser	Phe	Gly	Pro	Ser	Ala	Val	Leu	Gly	Asp	Phe	Gly	Ser
			20					25					30		
Ser	Arg	Leu	Ile	Glu	Lys	Glu	Cys	Leu	Glu	Lys	Glu	Ser	Arg	Asp	Tyr
			35				40						45		
Asp	Val	Asp	His	Pro	Gly	Glu	Ala	Asp	Ser	Val	Leu	Arg	Gly	Ser	Ser
	50					55					60				
Gln	Val	Gln	Ala	Arg	Gly	Arg	Ala	Leu	Asn	Ile	Val	Asp	Gln	Glu	Gly
65					70				75					80	
Ser	Leu	Leu	Gly	Lys	Gly	Glu	Thr	Gln	Gly	Leu	Leu	Thr	Ala	Lys	Gly
				85				90						95	
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<210> 5648  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 5648  
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 Gly Ile Arg Gly Pro Lys Gly Gln Lys Gly Glu Pro Gly Leu Pro Gly  
 35 40 45  
 His Pro  
 50

<210> 5649  
 <211> 345  
 <212> DNA  
 <213> Homo sapiens

<400> 5649  
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 gacccgagtc tccggcgag cgcgggcggc ttgctccgct cgcaggtcat ccacagcggg  
 180  
 cacttcattg tgctctgcc gcacagcgac tcgctgcccc ggcgggcgca ccaggagggt  
 240  
 ccgtggggcc ctccgacttc gggccgcgca gtatcgaccc cacactcaca cgctctctcg  
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 <212> PRT  
 <213> Homo sapiens

<400> 5650  
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 35 40 45  
 Trp Cys Arg Arg Arg Thr Ala Thr Arg Cys Pro Gly Gly Ala Thr Arg  
 50 55 60  
 Arg Val Arg Gly Ala Leu Arg Leu Arg Ala Ala Gln Tyr Arg Pro His  
 65 70 75 80  
 Thr His Thr Pro Leu Arg Val Leu Glu Pro Gly Leu Gln Trp Gln Ala  
 85 90 95  
 Gly Val Ser Gln

100

&lt;210&gt; 5651

&lt;211&gt; 615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5651

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ctcgccatga agagccgctt tagcaccatt gacctccgcg ccgtactcgc ggagctgaat  
180  
gctagcttgc taggaatgag agtaaacaat gtttatgatg tggataataa gacatacctt  
240  
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catacaacag aatttgagtg gcctaagaat atgatgccgt ctagttttgc catgaagtgc  
360  
cgaaaacatt tgaagagtcg gagattagtc agtgcaaac agcttggtgt ggatagaatt  
420  
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480  
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&lt;210&gt; 5652

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5652

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Leu	Asn	Ala	Ser	Leu	Leu	Gly	Met	Arg	Val	Asn	Asn	Val	Tyr	Asp	Val
			20					25					30		
Asp	Asn	Lys	Thr	Tyr	Leu	Ile	Arg	Leu	Gln	Lys	Pro	Asp	Phe	Lys	Ala
		35					40					45			
Thr	Leu	Leu	Leu	Glu	Ser	Gly	Ile	Gln	Ile	His	Thr	Thr	Glu	Phe	Glu
		50				55				60					
Trp	Pro	Lys	Asn	Met	Met	Pro	Ser	Ser	Phe	Ala	Met	Lys	Cys	Arg	Lys
65				70					75					80	
His	Leu	Lys	Ser	Arg	Arg	Leu	Val	Ser	Ala	Lys	Gln	Leu	Gly	Val	Asp
			85					90					95		
Arg	Ile	Val	Asp	Phe	Gln	Phe	Gly	Ser	Asp	Glu	Ala	Ala	Tyr	His	Leu
		100					105						110		
Ile	Ile	Glu	Leu	Tyr	Asp	Arg	Gly	Asn	Ile	Val	Leu	Thr	Asp	Tyr	Glu
		115				120						125			
Tyr	Val	Ile	Leu	Asn	Ile	Leu	Arg	Phe	Arg	Thr	Asp	Glu	Ala	Asp	Asp

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Ala Glu Pro		160

<210> 5653  
 <211> 1439  
 <212> DNA  
 <213> Homo sapiens

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 1260



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<210> 5654

<211> 245

<212> PRT

<213> Homo sapiens

<400> 5654

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			20					25					30		
Tyr	Gly	Ile	Pro	Gly	Met	Pro	Gly	Leu	Pro	Gly	Ala	Pro	Gly	Lys	Asp
		35					40					45			
Gly	Tyr	Asp	Gly	Leu	Pro	Gly	Pro	Lys	Gly	Glu	Pro	Gly	Ile	Pro	Ala
	50					55					60				
Ile	Pro	Gly	Ile	Arg	Gly	Pro	Lys	Gly	Gln	Lys	Gly	Glu	Pro	Gly	Leu
65					70					75				80	
Pro	Gly	His	Pro	Gly	Lys	Asn	Gly	Pro	Met	Gly	Pro	Pro	Gly	Met	Pro
				85					90					95	
Gly	Val	Pro	Gly	Pro	Met	Gly	Ile	Pro	Gly	Glu	Pro	Gly	Glu	Gly	Gly
			100					105					110		
Arg	Tyr	Lys	Gln	Lys	Phe	Gln	Ser	Val	Phe	Thr	Val	Thr	Arg	Gln	Thr
		115					120					125			
His	Gln	Pro	Pro	Ala	Pro	Asn	Ser	Leu	Ile	Arg	Phe	Asn	Ala	Val	Leu
	130					135					140				
Thr	Asn	Pro	Gln	Gly	Asp	Tyr	Asp	Thr	Ser	Thr	Gly	Lys	Phe	Thr	Cys
145					150					155				160	
Lys	Val	Pro	Gly	Leu	Tyr	Tyr	Phe	Val	Tyr	His	Ala	Ser	His	Thr	Ala
				165					170					175	
Asn	Leu	Cys	Val	Leu	Leu	Tyr	Arg	Ser	Gly	Val	Lys	Val	Val	Thr	Phe
			180					185					190		
Cys	Gly	His	Thr	Ser	Lys	Thr	Asn	Gln	Val	Asn	Ser	Gly	Gly	Val	Leu
	195						200					205			
Leu	Arg	Leu	Gln	Val	Gly	Glu	Glu	Val	Trp	Leu	Ala	Val	Asn	Asp	Tyr
	210					215					220				
Tyr	Asp	Met	Val	Gly	Ile	Gln	Gly	Ser	Asp	Ser	Val	Phe	Ser	Gly	Phe
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<210> 5655

<211> 3810

<212> DNA

<213> Homo sapiens

<400> 5655

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<210> 5656  
 <211> 987  
 <212> PRT  
 <213> Homo sapiens

<400> 5656  
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 Ala Glu Val Arg Arg Glu Trp Ala Lys Tyr Met Glu Val His Glu Lys  
 35 40 45  
 Ala Ser Phe Thr Asn Ser Glu Leu His Arg Ala Met Asn Leu His Val  
 50 55 60  
 Gly Asn Leu Arg Leu Leu Ser Gly Pro Leu Asp Gln Val Arg Ala Ala  
 65 70 75 80  
 Leu Pro Thr Pro Ala Leu Ser Pro Glu Asp Lys Ala Val Leu Gln Asn  
 85 90 95  
 Leu Lys Arg Ile Leu Ala Lys Val Gln Glu Met Arg Asp Gln Arg Val  
 100 105 110  
 Ser Leu Glu Gln Gln Leu Arg Glu Leu Ile Gln Lys Asp Asp Ile Thr  
 115 120 125  
 Ala Ser Leu Val Thr Thr Asp His Ser Glu Met Lys Lys Leu Phe Glu  
 130 135 140  
 Glu Gln Leu Lys Lys Tyr Asp Gln Leu Lys Val Tyr Leu Glu Gln Asn  
 145 150 155 160  
 Leu Ala Ala Gln Asp Arg Val Leu Cys Ala Leu Thr Glu Ala Asn Val  
 165 170 175  
 Gln Tyr Ala Ala Val Arg Arg Val Leu Ser Asp Leu Asp Gln Lys Trp  
 180 185 190  
 Asn Ser Thr Leu Gln Thr Leu Val Ala Ser Tyr Glu Ala Tyr Glu Asp  
 195 200 205  
 Leu Met Lys Lys Ser Gln Glu Gly Arg Asp Phe Tyr Ala Asp Leu Glu  
 210 215 220  
 Ser Lys Val Ala Ala Leu Leu Glu Arg Thr Gln Ser Thr Cys Gln Ala

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				245					250				255	
Pro	Pro	Pro	Arg	Pro	Thr	Ala	Pro	Lys	Pro	Leu	Leu	Pro	Arg	Arg
			260					265					270	
Glu	Ser	Glu	Ala	Val	Glu	Ala	Gly	Asp	Pro	Pro	Glu	Glu	Leu	Arg
		275					280					285		
Leu	Pro	Pro	Asp	Met	Val	Ala	Gly	Pro	Arg	Leu	Pro	Asp	Thr	Phe
	290				295						300			Leu
Gly	Ser	Ala	Thr	Pro	Leu	His	Phe	Pro	Pro	Ser	Pro	Phe	Pro	Ser
305					310					315				320
Thr	Gly	Pro	Gly	Pro	His	Tyr	Leu	Ser	Gly	Pro	Leu	Pro	Pro	Gly
				325					330					335
Tyr	Ser	Gly	Pro	Thr	Gln	Leu	Ile	Gln	Pro	Arg	Ala	Pro	Gly	Pro
			340					345					350	His
Ala	Met	Pro	Val	Ala	Pro	Gly	Pro	Ala	Leu	Tyr	Pro	Ala	Pro	Ala
	355						360					365		Tyr
Thr	Pro	Glu	Leu	Gly	Leu	Val	Pro	Arg	Ser	Ser	Pro	Gln	His	Gly
	370					375					380			Val
Val	Ser	Ser	Pro	Tyr	Val	Gly	Val	Gly	Pro	Ala	Pro	Pro	Val	Ala
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Leu	Pro	Ser	Ala	Pro	Pro	Pro	Gln	Phe	Ser	Gly	Pro	Glu	Leu	Ala
				405					410					415
Ala	Val	Arg	Pro	Ala	Thr	Thr	Thr	Val	Asp	Ser	Ile	Gln	Ala	Pro
			420					425					430	Ile
Pro	Ser	His	Thr	Ala	Pro	Arg	Pro	Asn	Pro	Thr	Pro	Ala	Pro	Pro
	435						440					445		Pro
Pro	Cys	Phe	Pro	Val	Pro	Pro	Gln	Pro	Leu	Pro	Thr	Pro	Tyr	Thr
	450					455				460				
Tyr	Pro	Ala	Gly	Ala	Lys	Gln	Pro	Ile	Pro	Ala	Gln	His	His	Phe
465					470				475					480
Ser	Gly	Ile	Pro	Thr	Gly	Phe	Pro	Ala	Pro	Arg	Ile	Gly	Pro	Gln
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Gln	Pro	His	Pro	Gln	Pro	His	Pro	Ser	Gln	Ala	Phe	Gly	Pro	Gln
			500					505					510	Pro
Pro	Gln	Gln	Pro	Leu	Pro	Leu	Gln	His	Pro	His	Leu	Phe	Pro	Pro
	515						520					525		Gln
Ala	Pro	Gly	Leu	Leu	Pro	Pro	Gln	Ser	Pro	Tyr	Pro	Tyr	Ala	Pro
	530					535					540			Gln
Pro	Gly	Val	Leu	Gly	Gln	Pro	Pro	Pro	Pro	Leu	His	Thr	Gln	Leu
545					550				555					560
Pro	Gly	Pro	Ala	Gln	Asp	Pro	Leu	Pro	Ala	His	Ser	Gly	Ala	Leu
				565				570						575
Phe	Pro	Ser	Pro	Gly	Pro	Pro	Gln	Pro	Pro	His	Pro	Pro	Leu	Ala
			580				585						590	Tyr
Gly	Pro	Ala	Pro	Ser	Thr	Arg	Pro	Met	Gly	Pro	Gln	Ala	Ala	Pro
	595					600					605			Leu
Thr	Ile	Arg	Gly	Pro	Ser	Ser	Ala	Gly	Gln	Ser	Thr	Pro	Ser	Pro
	610					615					620			His
Leu	Val	Pro	Ser	Pro	Ala	Pro	Ser	Pro	Gly	Pro	Gly	Pro	Val	Pro
625					630				635					640
Arg	Pro	Pro	Ala	Ala	Glu	Pro	Pro	Pro	Cys	Leu	Arg	Arg	Gly	Ala
				645				650					655	Ala
Ala	Ala	Asp	Leu	Leu	Ser	Ser	Ser	Pro	Glu	Ser	Gln	His	Gly	Gly
														Thr

660					665					670					
Gln	Ser	Pro	Gly	Gly	Gly	Gln	Pro	Leu	Leu	Gln	Pro	Thr	Lys	Val	Asp
675					680					685					
Ala	Ala	Glu	Gly	Arg	Arg	Pro	Gln	Ala	Leu	Arg	Leu	Ile	Glu	Arg	Asp
690					695					700					
Pro	Tyr	Glu	His	Pro	Glu	Arg	Leu	Arg	Gln	Leu	Gln	Gln	Glu	Leu	Glu
705					710					715					
Ala	Phe	Arg	Gly	Gln	Leu	Gly	Asp	Val	Gly	Ala	Leu	Asp	Thr	Val	Trp
725					730					735					
Arg	Glu	Leu	Gln	Asp	Ala	Gln	Glu	His	Asp	Ala	Arg	Gly	Arg	Ser	Ile
740					745					750					
Ala	Ile	Ala	Arg	Cys	Tyr	Ser	Leu	Lys	Asn	Arg	His	Gln	Asp	Val	Met
755					760					765					
Pro	Tyr	Asp	Ser	Asn	Arg	Val	Val	Leu	Arg	Ser	Gly	Lys	Asp	Asp	Tyr
770					775					780					
Ile	Asn	Ala	Ser	Cys	Val	Glu	Gly	Leu	Ser	Pro	Tyr	Cys	Pro	Pro	Leu
785					790					795					
Val	Ala	Thr	Gln	Ala	Pro	Leu	Pro	Gly	Thr	Ala	Ala	Asp	Phe	Trp	Leu
805					810					815					
Met	Val	His	Glu	Gln	Lys	Val	Ser	Val	Ile	Val	Met	Leu	Val	Ser	Glu
820					825					830					
Ala	Glu	Met	Glu	Lys	Gln	Lys	Val	Ala	Arg	Tyr	Phe	Pro	Thr	Glu	Arg
835					840					845					
Gly	Gln	Pro	Met	Val	His	Gly	Ala	Leu	Ser	Leu	Ala	Leu	Ser	Ser	Val
850					855					860					
Arg	Ser	Thr	Glu	Thr	His	Val	Glu	Arg	Val	Leu	Ser	Leu	Gln	Phe	Arg
865					870					875					
Asp	Gln	Ser	Leu	Lys	Arg	Ser	Leu	Val	His	Leu	His	Phe	Pro	Thr	Trp
885					890					895					
Pro	Glu	Leu	Gly	Leu	Pro	Asp	Ser	Pro	Ser	Asn	Leu	Leu	Arg	Phe	Ile
900					905					910					
Gln	Glu	Val	His	Ala	His	Tyr	Leu	His	Gln	Arg	Pro	Leu	His	Thr	Pro
915					920					925					
Ile	Ile	Val	His	Cys	Ser	Ser	Gly	Val	Gly	Arg	Thr	Gly	Ala	Phe	Ala
930					935					940					
Leu	Leu	Tyr	Ala	Ala	Val	Gln	Glu	Val	Glu	Ala	Gly	Asn	Gly	Ile	Pro
945					950					955					
Glu	Leu	Pro	Gln	Leu	Val	Arg	Arg	Met	Arg	Gln	Gln	Arg	Lys	His	Met
965					970					975					
Leu	Gln	Glu	Lys	Leu	His	Leu	Arg	Xaa	Leu	Leu					
980					985										

&lt;210&gt; 5657

&lt;211&gt; 1020

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5657

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120

gcctcgggct atgggaccca gaacattcga ctgagccggg atgccgtgaa ggacttcgac  
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 420  
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 720  
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 780  
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&lt;210&gt; 5658

&lt;211&gt; 301

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5658

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His	Glu	Lys	Lys	Lys	Asp	Thr	Ala	Ala	Ser	Gly	Tyr	Gly	Thr	Gln	Asn
			20					25					30		
Ile	Arg	Leu	Ser	Arg	Asp	Ala	Val	Lys	Asp	Phe	Asp	Cys	Cys	Cys	Leu
		35					40					45			
Ser	Leu	Gln	Pro	Cys	His	Asp	Pro	Val	Val	Thr	Pro	Asp	Gly	Tyr	Leu
	50				55					60					
Tyr	Glu	Arg	Glu	Ala	Ile	Leu	Glu	Tyr	Ile	Leu	His	Gln	Lys	Lys	Glu
65				70				75				80			
Ile	Ala	Arg	Gln	Met	Lys	Ala	Tyr	Glu	Lys	Gln	Arg	Gly	Thr	Arg	Arg
			85				90					95			
Glu	Glu	Gln	Lys	Glu	Leu	Gln	Arg	Ala	Ala	Ser	Gln	Asp	His	Val	Arg
		100					105				110				
Gly	Phe	Leu	Glu	Lys	Glu	Ser	Ala	Ile	Val	Ser	Arg	Pro	Leu	Asn	Pro
	115					120					125				
Phe	Thr	Ala	Lys	Ala	Leu	Ser	Gly	Thr	Ser	Pro	Asp	Asp	Val	Gln	Pro
	130					135					140				
Gly	Pro	Ser	Val	Gly	Pro	Pro	Ser	Lys	Asp	Lys	Asp	Lys	Val	Leu	Pro

145		150		155		160									
Ser	Phe	Trp	Ile	Pro	Ser	Leu	Thr	Pro	Glu	Ala	Lys	Ala	Thr	Lys	Leu
				165					170					175	
Glu	Lys	Pro	Ser	Arg	Thr	Val	Thr	Cys	Pro	Met	Ser	Gly	Lys	Pro	Leu
			180					185					190		
Arg	Met	Ser	Asp	Leu	Thr	Pro	Val	His	Phe	Thr	Pro	Leu	Asp	Ser	Ser
		195					200					205			
Val	Asp	Arg	Val	Gly	Leu	Ile	Thr	Arg	Ser	Glu	Arg	Tyr	Val	Cys	Ala
	210					215					220				
Val	Thr	Arg	Asp	Ser	Leu	Ser	Asn	Ala	Thr	Pro	Cys	Ala	Val	Leu	Arg
225					230					235					240
Pro	Ser	Gly	Ala	Val	Val	Thr	Leu	Glu	Cys	Val	Glu	Lys	Leu	Ile	Arg
			245						250					255	
Lys	Asp	Met	Val	Asp	Pro	Val	Thr	Gly	Asp	Lys	Leu	Thr	Asp	Arg	Asp
		260						265					270		
Ile	Ile	Val	Leu	Gln	Arg	Gly	Gly	Thr	Gly	Phe	Ala	Gly	Ser	Gly	Val
		275					280					285			
Lys	Leu	Gln	Ala	Glu	Lys	Ser	Arg	Pro	Val	Met	Gln	Ala			
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&lt;210&gt; 5659

&lt;211&gt; 1263

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5659

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120
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180
atctttctct tctgttttca ggtcacatgt gccaatttaa cgaacgggtg aaagtcagaa
240
cttctgaaat caggaagcag caaatccaca cttaaagcaca tatggacaga aagcagcaaa
300
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360
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420
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480
acgggcaagt ttaagaaaat gtttggtatg ggcgattttc attccaacat caaaacagtg
540
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600
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660
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720
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780
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840

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 960  
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 1080  
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 1260  
 att  
 1263

<210> 5660  
 <211> 253  
 <212> PRT  
 <213> Homo sapiens

<400> 5660  
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 Lys Asp Leu Ser Ile Ser Arg Leu Leu Ser Gln Thr Phe Arg Gly Lys  
 35 40 45  
 Glu Asn Asp Thr Asp Leu Asp Leu Arg Tyr Asp Thr Pro Glu Pro Tyr  
 50 55 60  
 Ser Glu Gln Asp Leu Trp Asp Trp Leu Arg Asn Ser Thr Asp Leu Gln  
 65 70 75 80  
 Glu Pro Arg Pro Arg Ala Lys Arg Arg Pro Ile Val Lys Thr Gly Lys  
 85 90 95  
 Phe Lys Lys Met Phe Gly Trp Gly Asp Phe His Ser Asn Ile Lys Thr  
 100 105 110  
 Val Lys Leu Asn Leu Leu Ile Thr Gly Lys Ile Val Asp His Gly Asn  
 115 120 125  
 Gly Thr Phe Ser Val Tyr Phe Arg His Asn Ser Thr Gly Gln Gly Asn  
 130 135 140  
 Val Ser Val Ser Leu Val Pro Pro Thr Lys Ile Val Glu Phe Asp Leu  
 145 150 155 160  
 Ala Gln Gln Thr Val Ile Asp Ala Lys Asp Ser Lys Ser Phe Asn Cys  
 165 170 175  
 Arg Ile Glu Tyr Glu Lys Val Asp Lys Ala Thr Lys Asn Thr Leu Cys  
 180 185 190  
 Asn Tyr Asp Pro Ser Lys Thr Cys Tyr Gln Glu Gln Thr Gln Ser His  
 195 200 205  
 Val Ser Trp Leu Cys Ser Lys Pro Phe Lys Val Ile Cys Ile Tyr Ile  
 210 215 220  
 Ser Phe Tyr Ser Thr Asp Tyr Lys Leu Val Gln Lys Val Cys Pro Asp  
 225 230 235 240  
 Tyr Asn Tyr His Ser Asp Thr Pro Tyr Phe Pro Ser Gly

245

250

<210> 5661  
 <211> 578  
 <212> DNA  
 <213> Homo sapiens

<400> 5661  
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 120  
 ataaccctagt gcacggcaag gaccagcag gaagcaccag cactggccc cgacctcccg  
 180  
 caccaggac ctgacgggca cttagacaca cacagtggcc tgagctcaa ctccagcatg  
 240  
 accacgcggg agcttcagca gtactggcag aaccagaaat gccgctggaa gcacgtcaaa  
 300  
 ctgctctttg agatcgcttc agctcgcatc gaggagagaa aagtctctaa gtttgtgatg  
 360  
 gggaaatcaa ggcctggaga gatgacttat ccagggtcac gtggcgagac agggacagca  
 420  
 ccagaaccag acccgagatg tccacgtcaa agtgacatgc tctgagaggc agcacacaca  
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<210> 5662  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 5662  
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 Cys Leu Gly Ala Cys Lys Ser Arg Ala Pro Trp Glu Pro Trp Cys Met  
 20 25 30  
 Gly Pro Ile Thr Gln Cys Thr Ala Arg Thr Gln Gln Glu Ala Pro Ala  
 35 40 45  
 Thr Gly Pro Asp Leu Pro His Pro Gly Pro Asp Gly His Leu Asp Thr  
 50 55 60  
 His Ser Gly Leu Ser Ser Asn Ser Ser Met Thr Thr Arg Glu Leu Gln  
 65 70 75 80  
 Gln Tyr Trp Gln Asn Gln Lys Cys Arg Trp Lys His Val Lys Leu Leu  
 85 90 95  
 Phe Glu Ile Ala Ser Ala Arg Ile Glu Glu Arg Lys Val Ser Lys Phe  
 100 105 110  
 Val Met Gly Lys Ser Arg Pro Gly Glu Met Thr Tyr Pro Gly Ser Arg  
 115 120 125  
 Gly Glu Thr Gly Thr Ala Pro Glu Pro Asp Pro Arg Cys Pro Arg Gln  
 130 135 140  
 Ser Asp Met Leu

145

<210> 5663  
 <211> 857  
 <212> DNA  
 <213> Homo sapiens

<400> 5663  
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 120  
 agacaggagg ctgccgtggt caagaagggc caagccttga agtctcacgg caccctctgt  
 180  
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 240  
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 360  
 atccagaggt agctgggtgc tatctagatc aggaatggag aacttcttgt agtacttctt  
 420  
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 660  
 acgccacttt ctcaacaagta gttcactcgt cttctcgtca tattcttcag ccatttcctt  
 720  
 gccgtctggg aataaatagt gaaccttctt tctcccgctc tgcagcagcg cagtcttctg  
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 840  
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 857

<210> 5664  
 <211> 203  
 <212> PRT  
 <213> Homo sapiens

<400> 5664  
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 20 25 30  
 Gly Lys Glu Met Ala Glu Glu Tyr Asp Glu Lys Thr Ser Glu Leu Leu  
 35 40 45  
 Val Arg Lys Trp Arg Val Lys Ser Ala Leu Gly Ala Met Gly Gln Trp  
 50 55 60  
 Gln Leu Glu Val Gly Asp Pro Ala Pro Leu Gly Ala Gly Asn Leu Gly

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65          70          75          80
Pro Glu Leu Ile Lys Glu Ser Asn Ala Asn Pro Ile Phe Met Arg Lys
          85          90          95
Asp Thr Lys Met Ser Phe Gln Trp Arg Ile Arg Asn Leu Pro Tyr Pro
          100          105          110
Lys Asp Val Tyr Ser Val Ser Val Asp Gln Lys Glu Arg Cys Ile Ile
          115          120          125
Val Arg Thr Thr Asn Lys Lys Tyr Tyr Lys Lys Phe Ser Ile Pro Asp
          130          135          140
Leu Asp Arg His Gln Leu Pro Leu Asp Asp Ala Leu Leu Ser Phe Ala
          145          150          155          160
His Ala Asn Cys Thr Leu Ile Ile Ser Tyr Gln Lys Pro Lys Glu Val
          165          170          175
Val Val Ala Glu Ser Glu Leu Gln Lys Glu Leu Lys Lys Val Lys Thr
          180          185          190
Ala His Ser Asn Asp Gly Asp Cys Lys Thr Gln
          195          200

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<210> 5665  
 <211> 531  
 <212> DNA  
 <213> Homo sapiens

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<400> 5665
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120
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180
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240
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300
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360
ctgtaccggg agcgctgct gcagcgatgc gagcggcgcc cgggtggagca ggtgctgtac
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480
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531

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<210> 5666  
 <211> 79  
 <212> PRT  
 <213> Homo sapiens

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<400> 5666
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20          25          30
Glu Arg Arg Pro Val Glu Gln Val Leu Tyr His Gly Thr Thr Ala Pro

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35 40 45  
 Ala Val Pro Asp Ile Cys Ala His Gly Phe Asn Arg Ser Phe Cys Gly  
 50 55 60  
 Arg Asn Ala Thr Val Tyr Gly Lys Gly Val Tyr Phe Ala Arg Arg  
 65 70 75

&lt;210&gt; 5667

&lt;211&gt; 858

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5667

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 120  
 tttgagaagt taagaatgat ttccaaggaa atccgccaaag ttgttcgaat gacttctgct  
 180  
 aacatggacc cagctatgat gtttcgacag aggtcactga gtcaaggaag cacaaattca  
 240  
 aacatgctgg atgttcaggg aggtgctcac aaaaaaaggg cacgccgcag ctctctgctt  
 300  
 aatgccaaaga agctatatga ggatgcccaa atggcaagga aggtgaagca gtatctttcc  
 360  
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 420  
 gcatatggta cctgtgagta caagttttca tttatgtgac gctaaagagc acaacaaaat  
 480  
 aaaaacttat ttctctagaa ttatacctaa gtccaagaa aattaacttt cactcacaaa  
 540  
 agattgctgg cataccttaa gcatcatgtg atccaattaa tcacagactg aatcccatcc  
 600  
 attcctgatg gctacactat ccaaaaaata gagggataag tagatcttta aaaagctttt  
 660  
 taattctttt aaaaactgga tcattataga ggaggctttc tgtttgagaa catttttata  
 720  
 ttcattccta aagagtaaac ataagtggaa tttttacctc tttttatttc atggataata  
 780  
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 840  
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 858

&lt;210&gt; 5668

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5668

Xaa Ser Ala Arg Gly Ser Gln Ser Met Gln Pro Pro Ile Ile Pro Leu  
 1 5 10 15  
 Phe Pro Val Val Lys Lys Asp Met Thr Phe Leu His Glu Gly Asn Asp  
 20 25 30  
 Ser Lys Val Asp Gly Leu Val Asn Phe Glu Lys Leu Arg Met Ile Ser

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<210> 5669
<211> 1842
<212> DNA
<213> Homo sapiens
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<400> 5669
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120
gccatgatgc gcagctccat agagagggggc aaatgggtct tcttcagaa ctgccacctg
180
gcaccaagct ggatgccagc cctagaacgc ctcatcgagc acatcaaccc cgacaaggta
240
cacagggact tccgcctctg gctcaccagc ctgcccagca acaagttccc agtgtccatc
300
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360
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840
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900
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960

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 1140  
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 1320  
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 1440  
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 1500  
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 1560  
 atggccgtta tctggctctt gccaacaccc aaccgcaagg cccaggacca ggacttttac  
 1620  
 ctgtgccccca tctacaagac actgactcgt gctggaacac tatcaaccac aggacactct  
 1680  
 accaactatg tcattgctgt ggagatcccc acccatcagc cccagcgaca ctggataaag  
 1740  
 cgtgggtgtg ccctcatctg tgccctggac tactagactc agacagaagg gctgggggcca  
 1800  
 ttaaagctga attttctaag caaaaaaaaaa aaaaaaaaaa aa  
 1842

&lt;210&gt; 5670

&lt;211&gt; 591

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5670

Phe	Val	Leu	Ser	Pro	Gly	Thr	Asp	Pro	Ala	Ala	Asp	Leu	Tyr	Lys	Phe
1				5				10					15		
Ala	Glu	Glu	Met	Lys	Phe	Ser	Lys	Lys	Leu	Ser	Ala	Ile	Ser	Leu	Gly
			20					25					30		
Gln	Gly	Gln	Gly	Pro	Arg	Ala	Glu	Ala	Met	Met	Arg	Ser	Ser	Ile	Glu
			35					40					45		
Arg	Gly	Lys	Trp	Val	Phe	Phe	Gln	Asn	Cys	His	Leu	Ala	Pro	Ser	Trp
			50				55				60				
Met	Pro	Ala	Leu	Glu	Arg	Leu	Ile	Glu	His	Ile	Asn	Pro	Asp	Lys	Val
					70					75				80	
His	Arg	Asp	Phe	Arg	Leu	Trp	Leu	Thr	Ser	Leu	Pro	Ser	Asn	Lys	Phe
				85					90					95	
Pro	Val	Ser	Ile	Leu	Gln	Asn	Gly	Ser	Lys	Met	Thr	Ile	Glu	Pro	Pro
			100					105					110		
Arg	Gly	Val	Arg	Ala	Asn	Leu	Leu	Lys	Ser	Tyr	Ser	Ser	Leu	Gly	Glu
			115				120						125		
Asp	Phe	Leu	Asn	Ser	Cys	His	Lys	Val	Met	Glu	Phe	Lys	Ser	Leu	Leu

```

130      135      140
Leu Ser Leu Cys Leu Phe His Gly Asn Ala Leu Glu Arg Arg Lys Phe
145      150      155      160
Gly Pro Leu Gly Phe Asn Ile Pro Tyr Glu Phe Thr Asp Gly Asp Leu
165      170      175
Arg Ile Cys Ile Ser Gln Leu Lys Met Phe Leu Asp Glu Tyr Asp Asp
180      185      190
Ile Pro Tyr Lys Val Leu Lys Tyr Thr Ala Gly Glu Ile Asn Tyr Gly
195      200      205
Gly Arg Val Thr Asp Asp Trp Asp Arg Arg Cys Ile Met Asn Ile Leu
210      215      220
Glu Asp Phe Tyr Asn Pro Asp Val Leu Ser Pro Glu His Ser Tyr Ser
225      230      235      240
Ala Ser Gly Ile Tyr His Gln Ile Pro Pro Thr Tyr Asp Leu His Gly
245      250      255
Tyr Leu Ser Tyr Ile Lys Ser Leu Pro Leu Asn Asp Met Pro Glu Ile
260      265      270
Phe Gly Leu His Asp Asn Ala Asn Ile Thr Phe Ala Gln Asn Glu Thr
275      280      285
Phe Ala Leu Leu Gly Thr Ile Ile Gln Leu Gln Pro Lys Ser Ser Ser
290      295      300
Ala Gly Ser Gln Gly Arg Glu Glu Ile Val Glu Asp Val Thr Gln Asn
305      310      315      320
Ile Leu Leu Lys Val Pro Glu Pro Ile Asn Leu Gln Trp Val Met Ala
325      330      335
Lys Tyr Pro Val Leu Tyr Glu Glu Ser Met Asn Thr Val Leu Val Gln
340      345      350
Glu Val Ile Arg Tyr Asn Arg Leu Leu Gln Val Ile Thr Gln Thr Leu
355      360      365
Gln Asp Leu Leu Lys Ala Leu Lys Gly Leu Val Val Met Ser Ser Gln
370      375      380
Leu Glu Leu Met Ala Ala Ser Leu Tyr Asn Asn Thr Val Pro Glu Leu
385      390      395      400
Trp Ser Ala Lys Ala Tyr Pro Ser Leu Lys Pro Leu Ser Ser Trp Val
405      410      415
Met Asp Leu Leu Gln Arg Leu Asp Phe Leu Gln Ala Trp Ile Gln Asp
420      425      430
Gly Ile Pro Ala Val Phe Trp Ile Ser Gly Phe Phe Phe Pro Gln Ala
435      440      445
Phe Leu Thr Gly Thr Leu Gln Asn Phe Ala Arg Lys Phe Val Ile Ser
450      455      460
Ile Asp Thr Ile Ser Phe Asp Phe Lys Val Met Phe Glu Ala Pro Ser
465      470      475      480
Glu Leu Thr Gln Arg Pro Gln Val Gly Cys Tyr Ile His Gly Leu Phe
485      490      495
Leu Glu Gly Ala Arg Trp Asp Pro Glu Ala Phe Gln Leu Ala Glu Ser
500      505      510
Gln Pro Lys Glu Leu Tyr Thr Glu Met Ala Val Ile Trp Leu Leu Pro
515      520      525
Thr Pro Asn Arg Lys Ala Gln Asp Gln Asp Phe Tyr Leu Cys Pro Ile
530      535      540
Tyr Lys Thr Leu Thr Arg Ala Gly Thr Leu Ser Thr Thr Gly His Ser
545      550      555      560
Thr Asn Tyr Val Ile Ala Val Glu Ile Pro Thr His Gln Pro Gln Arg

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BNSDOCID: <WO\_\_ 0058473A2\_1\_>

Glu Ala Ile Ser Gly Ile His Asp Gln Glu Asp Gly Glu Gln Cys Lys  
                     85                    90                    95  
 Ser Val Phe His Trp Asp Met Lys Ser Lys Asp Lys Glu Gly Ala Pro  
                     100                    105                    110  
 Asn Arg Gln Pro Leu Ala Asn Glu Arg Ala Tyr Trp Thr Gly Tyr Gly  
                     115                    120                    125  
 Glu Gly Asn Ala Trp Cys Pro Gly Ala Leu Pro Asp Pro Glu Ile Val  
                     130                    135                    140  
 Arg Met Val Glu Ala Arg Lys Ser Leu Gly Glu Glu Tyr Thr Glu Asp  
 145                    150                    155                    160  
 Tyr Glu Gln Pro Arg Gly Lys Gly Ser Phe Pro Ala Met Ile Thr Pro  
                     165                    170                    175  
 Ala Tyr Gln Arg Ala Lys Lys Ala Asn Gln Leu Ala Ser Gln Val Glu  
                     180                    185                    190  
 Tyr Lys Arg Gly His Asp Glu Arg Ile Ser Arg Phe Ser Thr Val Ala  
                     195                    200                    205  
 Asp Thr Pro Glu Leu Leu Arg Ser Lys Ala Trp Gly  
                     210                    215                    220

&lt;210&gt; 5673

&lt;211&gt; 1279

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5673

ntntttttttt tttgaagcca gcattttccct ttattttctgg atggaaacgg ggccctaaaa  
 60  
 gcagaaatca atatttttgt ttgaaagatg cagtcacgtc aatttcactt ttggctaaaa  
 120  
 ccgagacgat aaaagaacag ttgggtgttt ataggatgcc ctcaaagtga gctggctaag  
 180  
 tgagctgggc tctaacttca ctcacaaatt tatagtacag ctaagaaggc cagtctgtcc  
 240  
 atgaaagggg gccgagacaa gacgagggcg gcctcttcca ggctgtgccc aagtgtcctt  
 300  
 ggggtcccgc catgggtccac acttctgcag catccgcaga acatgtggcc gggctcctgc  
 360  
 cagcagcagg gacagccaag tgggaggcag gcatgggtgca cacctgggga ggccccctggt  
 420  
 gcagaagcag cccacacagta gcagcccat ccagaggaag accactccgg agggccacag  
 480  
 gcctctgcag ccctggcact gccgcccagc cctccatctc agcgggatgt gcagggtgag  
 540  
 acaggaatgc agggacgttc tgcccctagg tcagcctctt catccgcctg ttgtgcttcg  
 600  
 atgggtcaagg ttgccctgtc cacagctgct gcaacgcat ccagggttc gtcttgtctc  
 660  
 tccagctcac tctcggtctc cgggcccagc ccttcacat cctcaggatc tgggttagtt  
 720  
 cctgggtatc tgcctcagaa agggctggca ggcttgtctg cagggtgcagt gctgtgcctt  
 780  
 cctgggtctc tgcgggtggc tcacggtgca gggtagggc catcagcca gatgctgcat  
 840

gccagactga gcagctcttc tctgcggggg aagagggttct tgcgcttctg agcaccaatg  
 900  
 catcttctaa cagctccatc ttcttgctga actgcacttc taaaatgggg ataacctctg  
 960  
 gcatcttggc agatatcaaa cgataggcca tgtctggctt tccaataaac cgctggcgga  
 1020  
 tgctaatttc gtaagggtgag tggaccttga tgcgtccac gtcttctctt tcaaacctgt  
 1080  
 gcatgagcaa agaactggag tcatgtatct ccaaccaga cacaaggacg gtgagcctcc  
 1140  
 ctggtttaac gtgagactct gttctgtggg aaataacagc aggaattttt atcagtatcc  
 1200  
 cttctttccc aaagggttca caactgggtca tggagacatc ttccctgggc tttgtttccg  
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 gtggtgtctt ccaaagctt  
 1279

&lt;210&gt; 5674

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5674

Leu	His	Ser	Gln	Ile	Tyr	Ser	Thr	Ala	Lys	Lys	Ala	Ser	Leu	Ser	Met
1			5						10				15		
Lys	Gly	Ser	Arg	Asp	Lys	Thr	Arg	Ala	Ala	Ser	Ser	Arg	Pro	Val	Pro
			20					25					30		
Ser	Val	Leu	Gly	Val	Pro	Pro	Trp	Ser	Thr	Leu	Leu	Gln	His	Pro	Gln
			35				40					45			
Asn	Met	Trp	Pro	Gly	Pro	Ala	Gln	Gln	Gln	Gly	Gln	Pro	Ser	Gly	Arg
			50			55				60					
Gln	Ala	Trp	Cys	Thr	Pro	Gly	Glu	Ala	Pro	Gly	Ala	Glu	Ala	Ala	Pro
65					70					75					80
Gln															

&lt;210&gt; 5675

&lt;211&gt; 1074

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5675

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 60  
 ccctgagctc ccaccgagg cttaggccca aggggcctct tccaggctga gggcctgctg  
 120  
 gggctgggcc aggggctgag gctgaaagca gcagcctgcc tagtgggtga cgccaggggc  
 180  
 cgggtgtaaca tggcaccgag gttggggcca cagcaatgtg tgggacggtg ggggtgggctg  
 240  
 gggcccttgg ctccaagcat tagttctcca agctctgggc cgttctccta cctccttcaa  
 300  
 ggggcaccag ggctacaagg tggtagttga gtattggggc ccgactcctg gggcactgga  
 360

gtggtctcta ggcccgagge cccaaggaga gggctgggtt tctgggagag tgctgggtcct  
 420  
 tcctctctgg gcttggccat cttgacagct tcatcgtagg aggggtggagg ctccggggtg  
 480  
 tacaggctgt aggcaggagg agccgtggag tccaggtcca gctccccaaa gggcaggggc  
 540  
 aaccgcatgc ccagtgggta ctgcacggag ctgtaggagg tcacagtgct gtgtacaggg  
 600  
 ctgtcactgt ccatagggat gactgccacg tcgcagggtt gccgtgctgg tggcagatgt  
 660  
 ggctgggcct gtgcctgctt ccggaggcag cagaaccgga cacaaccagc tgtgacacca  
 720  
 cacagcagaa gcaggaggac cgccagcagg atgagcctag gagagcaagg ctctaccact  
 780  
 ggactgaccc tcggccaccg ggcacctgca ccctggggaa tgtcgtggca caaccacga  
 840  
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 900  
 agagcctggc ctccggctgc tgggcctgcc ctggctatct ctctgggct ggccaggggt  
 960  
 ggccttgggc tcaactcccag gactcgctgt cctcagcgag tgccccactg ctgagcggga  
 1020  
 tcgtagggga ctcccgcgga ggccaggcgg gagagttggg aggggaaggtc ctgg  
 1074

&lt;210&gt; 5676

&lt;211&gt; 145

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5676

Glu	Val	Thr	Val	Leu	Cys	Thr	Gly	Leu	Ser	Leu	Ser	Ile	Gly	Met	Thr
1			5					10					15		
Ala	Thr	Ser	Gln	Gly	Cys	Arg	Ala	Gly	Gly	Arg	Cys	Gly	Trp	Ala	Cys
			20					25					30		
Ala	Cys	Phe	Arg	Arg	Gln	Gln	Asn	Arg	Thr	Gln	Pro	Ala	Val	Thr	Pro
		35					40					45			
His	Ser	Arg	Ser	Arg	Arg	Thr	Ala	Ser	Arg	Met	Ser	Leu	Gly	Glu	Gln
		50				55					60				
Gly	Ser	Thr	Thr	Gly	Leu	Thr	Leu	Gly	His	Arg	Ala	Pro	Ala	Pro	Trp
65				70					75					80	
Gly	Met	Ser	Trp	His	Asn	His	Arg	Arg	Gln	Val	Asn	Arg	Ile	Lys	Ser
				85					90					95	
Arg	Gln	Cys	Leu	Ser	Met	Ser	Glu	Thr	Ala	Val	Ala	Arg	Ala	Trp	Pro
			100					105					110		
Arg	Ala	Ala	Gly	Pro	Ala	Leu	Ala	Ile	Ser	Pro	Gly	Leu	Ala	Arg	Gly
		115				120						125			
Gly	Leu	Gly	Leu	Thr	Pro	Arg	Thr	Arg	Cys	Pro	Gln	Arg	Val	Pro	His
	130					135						140			
Cys															
145															

&lt;210&gt; 5677

&lt;211&gt; 477

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5677

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agcagctggt cctctttgaa gaggtcgatg ctgaaaggag gccgcctgac tccatggcaa
60
aaaaggacac tggatgaagta gcggttagcac tcctccacgt tgcccaaggg gggtgctggt
120
agggaaagca agatgcagca gtgaggccct ctctggtatc cattcattca cttcactcaa
180
cagctgttta tgaccatgag caatacaagc cttgtgaaga tcctggagca gggcacaagc
240
cgctgacgtc tgctccagtg agaagccctg ctgccttccc caattcgctt tctttccgca
300
gccgccgctg ccccgacccc ggatctgcat gtggaagtac ctggacgtcc attccatgca
360
ccagctggag aagaccacca atgctgagat gaggagggtg ctggctgagc tgctggagct
420
agggtgtcct gagcagagcc tgagcgacgc catcacctg gacctcttct gccgcgg
477

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&lt;210&gt; 5678

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5678

```

Met Ala Ser Leu Arg Leu Cys Ser Gly His Pro Ser Ser Ser Ser Ser
 1           5           10          15
Ala Ser Thr Ser Leu Ile Ser Ala Leu Val Val Phe Ser Ser Trp Cys
 20          25          30
Met Glu Trp Thr Ser Arg Tyr Phe His Met Gln Ile Arg Gly Arg Gly
 35          40          45
Ser Gly Gly Cys Gly Lys Lys Ala Asn Trp Gly Arg Gln Gln Gly Phe
 50          55          60
Ser Leu Glu Gln Thr Ser Ala Ala Cys Ala Leu Leu Gln Asp Leu His
 65          70          75          80
Lys Ala Cys Ile Ala His Gly His Lys Gln Leu Leu Ser Glu Val Asn
 85          90          95
Glu Trp Ile Pro Glu Arg Ala Ser Leu Leu His Leu Ala Phe Pro Thr
100         105         110
Ser Asn Pro Leu Gly Gln Arg Gly Gly Val Leu Pro Leu Leu His Gln
115         120         125
Cys Pro Phe Leu Pro Trp Ser Gln Ala Ala Ser Phe Gln His Arg Pro
130         135         140
Leu Gln Arg Gly Thr Ala Ala
145         150

```

&lt;210&gt; 5679

&lt;211&gt; 665

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5679

nngccccctcc aggaggggagc cgggagatta cgcagctcca tgtaggtcta cgttttaggtt  
 60  
 gggaggatct accatgaaga aggtcaagaa gaaaagggtca gaggccagac gccaccggac  
 120  
 tccacctccc agcatgctgg ctccaattcc acctctcagc agcctagccc tgaatccaca  
 180  
 ccacagcagc ctagtcctga atccacacca cagcagccta gccctgaatc cacaccacag  
 240  
 cattccagcc ttgaaaccac ctcccggcag ccagcattcc aagcccttcc agcacccgaa  
 300  
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 360  
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 420  
 gccctcggaa ctgtggctgt ggctctgggg gctctaggag ctgcctacta catcactgaa  
 480  
 tccttgtaga caagccccta ggcccacagt ctggcagacc tccaccagcc ccaggagttg  
 540  
 ataggtgatg gcgctgggag aagatgttca gaatatctca aaagccaagt ccagaagatc  
 600  
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 660  
 aaaaa  
 665

<210> 5680  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 5680  
 Val Gly Arg Ile Tyr His Glu Glu Gly Gln Glu Glu Lys Val Arg Gly  
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 Gln Thr Pro Pro Asp Ser Thr Ser Gln His Ala Gly Ser Asn Ser Thr  
 20 25 30  
 Ser Gln Gln Pro Ser Pro Glu Ser Thr Pro Gln Gln Pro Ser Pro Glu  
 35 40 45  
 Ser Thr Pro Gln Gln Pro Ser Pro Glu Ser Thr Pro Gln His Ser Ser  
 50 55 60  
 Leu Glu Thr Thr Ser Arg Gln Pro Ala Phe Gln Ala Leu Pro Ala Pro  
 65 70 75 80  
 Glu Ile Arg Arg Ser Ser Cys Cys Leu Leu Ser Pro Asp Ala Asn Val  
 85 90 95  
 Lys Ala Ala Pro Gln Ser Arg Lys Ala Glu Asn Leu Gln Glu Asn Pro  
 100 105 110  
 Pro Val Ile Val Thr Arg Val Leu Gln Ala Leu Gly Thr Val Ala Val  
 115 120 125  
 Ala Leu Gly Ala Leu Gly Ala Tyr Tyr Ile Thr Glu Ser Leu  
 130 135 140

<210> 5681  
 <211> 1402  
 <212> DNA  
 <213> Homo sapiens

<400> 5681  
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120  
tagacattga tggaagcaga aacccaaaact cttcccctgg agaatgcac catcctttca  
180  
gagggctctc tgcaggaagg acaccgatta tggattggca acctggaccc caaaattacc  
240  
gaataccacc tcctcaagct cctccagaag tttggcaagg taaagcagtt tgacttcctc  
300  
ttccacaagt caggtgcttt ggagggacag cctcgaggct actgttttgt taactttgaa  
360  
actaagcagg aagcagagca agccatccag tgtctcaatg gcaagttggc cctgtccaag  
420  
aagctggtgg tgcgatgggc acatgctcaa gtaaagagat atgatacata caagaatgat  
480  
aagattcttc caatcagctc cgagccatcc tcaagcactg agcctactca gtctaacct  
540  
agtgtcactg caaagataaa agccattgaa gcaaaactga aaatgatggc ggaaaatcct  
600  
gatgcagagt atccagcagc gcctgtttat tcctacttta agccaccaga taaaaaaagg  
660  
actactccat attctagaac agcatggaaa tctcgaagat gatggttgtg aattactgta  
720  
gcagcaaaag caaattggtc tccacaccta aaatcgtctg cctgtgtact ttgtagatgt  
780  
gaatggtact attcaacgga gcacaatcac atgttagcat ttggtaacat aatgtttttg  
840  
gatgttctta tggatgtttc ttccctaaac tatgtatgga attgagcatc atccagaata  
900  
aatagcgttg tatcccaaatt tgtgatttga accctgggat gctctaattg gctggttggc  
960  
ttggatttgt aactccagaa acattctata gtgtgccaga gcaaaaggca aatacacaaa  
1020  
atattattta aatcaggaaa ctaaaaatat taacatctat taaaaaattg agcatttttc  
1080  
tacgctcgtg tgtcttttac aacataaaga aaaagtaaaa ggcagggagg gaagtgagag  
1140  
acagatttta aatcatgttc agaactgttg ttccagaatt tactacggca atccctccaa  
1200  
ctggactgaa aaagagaaaag ttcttggcaa aaaggagctg attctttgaa caaatgttgt  
1260  
agtaatctgt ttaagaatta tgcttattgt ttcaaaatcc caactaggaa aacatggtgt  
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atatcttaaa attgtttgtg ttgacaaaac tagaatcaaa ttaacattt tataccacat  
1380  
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1402

<210> 5682  
<211> 190  
<212> PRT

<213> Homo sapiens

<400> 5682

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Ser Glu Gly Ser Leu Gln Glu Gly His Arg Leu Trp Ile Gly Asn Leu
          20           25           30
Asp Pro Lys Ile Thr Glu Tyr His Leu Leu Lys Leu Leu Gln Lys Phe
          35           40           45
Gly Lys Val Lys Gln Phe Asp Phe Leu Phe His Lys Ser Gly Ala Leu
          50           55           60
Glu Gly Gln Pro Arg Gly Tyr Cys Phe Val Asn Phe Glu Thr Lys Gln
65           70           75           80
Glu Ala Glu Gln Ala Ile Gln Cys Leu Asn Gly Lys Leu Ala Leu Ser
          85           90           95
Lys Lys Leu Val Val Arg Trp Ala His Ala Gln Val Lys Arg Tyr Asp
          100          105          110
His Asn Lys Asn Asp Lys Ile Leu Pro Ile Ser Leu Glu Pro Ser Ser
          115          120          125
Ser Thr Glu Pro Thr Gln Ser Asn Leu Ser Val Thr Ala Lys Ile Lys
          130          135          140
Ala Ile Glu Ala Lys Leu Lys Met Met Ala Glu Asn Pro Asp Ala Glu
145          150          155          160
Tyr Pro Ala Ala Pro Val Tyr Ser Tyr Phe Lys Pro Pro Asp Lys Lys
          165          170          175
Arg Thr Thr Pro Tyr Ser Arg Thr Ala Trp Lys Ser Arg Arg
          180          185          190

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<210> 5683

<211> 328

<212> DNA

<213> Homo sapiens

<400> 5683

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120
atgctttcag aaggcaccac atgtgatgca cagcctctat ttacatgtga ataattacac
180
tgctgctttc tggttaaaag tagggaaata cagtgttcca gggcatagga atggtgctct
240
gggtagaaaa gtttattttg ctggtgggag gcaggttttg ttaataaagc tttgaaatac
300
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328

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<210> 5684

<211> 103

<212> PRT

<213> Homo sapiens

<400> 5684

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Met Lys Phe Val Tyr Phe Lys Ala Leu Leu Thr Lys Pro Ala Ser His

```



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Gln	Gln	Asn	Lys	Leu	Phe	Tyr	Pro	Glu	His	His	Ser	Tyr	Ala	Leu	Glu
		20						25					30		
His	Cys	Ile	Ser	Leu	Leu	Leu	Thr	Arg	Lys	Gln	Gln	Cys	Asn	Tyr	Ser
		35						40				45			
His	Val	Asn	Arg	Gly	Cys	Ala	Ser	His	Val	Val	Pro	Ser	Glu	Ser	Ile
		50						55				60			
Gly	Trp	Ile	Val	Cys	Val	Pro	Trp	Leu	Met	Leu	Thr	His	Gln	Tyr	Arg
65						70				75				80	
Ser	Ala	Leu	Arg	Val	Cys	Arg	Asp	Gly	Gln	Cys	Leu	Thr	Ala	Glu	Ala
			85					90						95	
Ser	Leu	Gly	Gln	Arg	Met	Asp									
			100												

&lt;210&gt; 5685

&lt;211&gt; 604

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5685

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120
gagcggcagg agtggaagcg cttcatcgag gagcggctgc tcatgtactc cttcgtcaat
180
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604

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&lt;210&gt; 5686

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5686

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Phe	Ile	Val	Lys	Leu	Ala	Tyr	Glu	Ser	Asp	Gly	Ile	Val	Val	Ser	Asn
			20					25				30			
Asp	Thr	Tyr	Arg	Asp	Leu	Gln	Gly	Glu	Arg	Gln	Glu	Trp	Lys	Arg	Phe

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<210> 5687  
 <211> 328  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

<400> 5688  
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<211> 54  
<212> PRT  
<213> Homo sapiens

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<210> 5692

<211> 86

<212> PRT

<213> Homo sapiens

<400> 5692

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			20					25					30		
Pro	Ile	Asn	Thr	Phe	His	Gly	Ile	His	Gln	Asn	Glu	Asp	Glu	Pro	Ile
		35					40					45			
Arg	Val	Ser	Tyr	His	Arg	Asn	Ile	His	Tyr	Asn	Ser	Val	Val	Asn	Pro
	50					55					60				
Asn	Lys	Ala	Thr	Ile	Gly	Val	Gly	Leu	Gly	Cys	His	His	Ser	Asn	Gln
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Gly	Leu	Gln	Ser	Ser	Leu										
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<210> 5693

<211> 389

<212> DNA

<213> Homo sapiens

<400> 5693

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<210> 5694  
 <211> 60  
 <212> PRT  
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 <211> 1417  
 <212> DNA  
 <213> Homo sapiens

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<210> 5696

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5696

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Gln	Pro	Pro	Leu	Glu	Ala	Glu	Glu	Pro	Pro	Asp	Arg	Gly	Thr	Asp	Gly
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Lys	Ala	Gln	Leu	Val	Val	His	Ser	Ala	Phe	Glu	Gln	Asp	Val	Glu	Glu
	50					55					60				
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Thr	Val	Gly	Pro	Trp	Arg	Arg	Thr	Leu	Pro	Ala	Glu	Leu	Arg	Ala	Arg
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Ile	Leu	Arg	Gly	Phe	Gly	Ala	His	Pro	Ala	Arg	Ala	Ala	Arg	His	Leu
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Asn	Asn	Leu	Glu	Arg	Leu	Ala	Glu	Asn	Thr	Gly	Glu	Phe	Gln	Glu	Val
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Val	Arg	Ala	Phe	Tyr	Asp	Thr	Leu	Asp	Ala	Ala	Arg	Ser	Ser	Ile	Arg
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Val	Val	Arg	Val	Glu	Arg	Val	Ser	His	Pro	Leu	Leu	Gln	Gln	Gln	Tyr
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Cys Ala His Gly Phe Asn Arg Ser Phe Cys Gly Arg Asn Ala Thr Val				
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Tyr Gly Lys Gly Val Tyr Phe Ala Arg Arg Ala Ser Leu Ser Val Gln				
	260		265	270
Asp Arg Tyr Ser Pro Pro Asn Ala Asp Gly His Lys Ala Val Phe Val				
	275		280	285
Ala Arg Val Leu Thr Gly Asp Tyr Gly Gln Gly Arg Arg Gly Leu Arg				
	290		295	300
Ala Pro Pro Leu Arg Gly Pro Gly His Val Leu Leu Arg Tyr Asp Ser				
305		310		320
Ala Val Asp Cys Ile Cys Gln Pro Ser Ile Phe Val Ile Phe His Asp				
	325		330	335
Thr Gln Ala Leu Pro Thr His Leu Ile Thr Cys Glu His Val Pro Arg				
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 <213> Homo sapiens

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&lt;210&gt; 5698

&lt;211&gt; 403

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5698

Met	Phe	Val	Ala	Ser	Glu	Arg	Lys	Met	Arg	Ala	His	Gln	Val	Leu	Thr
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Thr	Ser	Arg	Gly	Cys	Gly	Leu	Asp	Leu	Leu	Pro	Gln	Tyr	Val	Ser	Leu
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Cys	Asp	Leu	Asp	Ala	Ile	Trp	Gly	Ile	Val	Val	Glu	Ala	Val	Ala	Gly
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Leu	Pro	Phe	Ile	Lys	Glu	Lys	Glu	Lys	Lys	Ser	Pro	Val	Gly	Leu	His
				85					90					95	
Phe	Leu	Phe	Leu	Leu	Gly	Thr	Leu	Gly	Leu	Phe	Gly	Leu	Thr	Phe	Ala
			100					105					110		
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Trp	Gly	Val	Leu	Phe	Ala	Leu	Cys	Phe	Ser	Cys	Leu	Leu	Ser	Gln	Ala

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Gln	Leu	Val	Gly	Leu	Ala	Leu	Cys	Leu	Met	Leu	Val	Gln	Val	Ile	Ile
				165					170					175	
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			180					185					190		
Cys	Ala	Tyr	Glu	Pro	Met	Asp	Phe	Val	Met	Ala	Leu	Ile	Tyr	Asp	Met
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Phe	Leu	Ser	Val	Leu	Ile	Trp	Val	Ala	Trp	Met	Thr	Met	Tyr	Leu	Phe
			245					250						255	
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		260					265						270		
Ala	Ile	Thr	Leu	Ala	Ala	Ser	Gly	Trp	Val	Phe	Val	Ile	Phe	His	Ala
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Ile	Pro	Glu	Ile	His	Cys	Thr	Leu	Leu	Pro	Ala	Leu	Gln	Glu	Asn	Thr
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Pro	Asn	Tyr	Phe	Asp	Thr	Ser	Gln	Pro	Arg	Met	Arg	Glu	Thr	Ala	Phe
305				310						315					320
Glu	Glu	Asp	Val	Gln	Leu	Pro	Arg	Ala	Tyr	Met	Glu	Asn	Lys	Ala	Phe
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His	Leu	Trp													

&lt;210&gt; 5699

&lt;211&gt; 1565

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5699

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 gtacc  
 1565

&lt;210&gt; 5700

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5700

Met	Val	Ala	Ile	Val	Gln	Leu	Gly	Pro	Glu	Trp	His	Gly	Met	Leu	Tyr
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Ser	Gln	Ala	Asp	Ser	Lys	Lys	Lys	Ser	Asn	Leu	Met	Met	Ser	Leu	Phe
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<210> 5701
<211> 1885
<212> DNA
<213> Homo sapiens
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780

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 1860  
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 1885

<210> 5702  
 <211> 348  
 <212> PRT  
 <213> Homo sapiens

<400> 5702  
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 20 25 30  
 Leu Leu Tyr Glu Asp Ile Gly Thr Ser Arg Val Arg Tyr Trp Asp Leu  
 35 40 45  
 Leu Leu Leu Ile Pro Asn Val Leu Phe Leu Ile Phe Leu Leu Trp Lys  
 50 55 60  
 Leu Pro Ser Ala Arg Ala Lys Ile Arg Ile Thr Ser Ser Pro Ile Phe

65					70					75					80
Ile	Thr	Phe	Tyr	Ile	Leu	Val	Phe	Val	Val	Ala	Leu	Val	Gly	Ile	Ala
				85					90					95	
Arg	Ala	Val	Val	Ser	Met	Thr	Val	Ser	Thr	Ser	Asn	Ala	Ala	Thr	Val
			100					105					110		
Ala	Asp	Lys	Ile	Leu	Trp	Glu	Ile	Thr	Arg	Phe	Phe	Leu	Leu	Ala	Ile
		115				120						125			
Glu	Leu	Ser	Val	Ile	Ile	Leu	Gly	Leu	Ala	Phe	Gly	His	Leu	Glu	Ser
	130					135					140				
Lys	Ser	Ser	Ile	Lys	Arg	Val	Leu	Ala	Ile	Thr	Thr	Val	Leu	Ser	Leu
145					150					155					160
Ala	Tyr	Ser	Val	Thr	Gln	Gly	Thr	Leu	Glu	Ile	Leu	Tyr	Pro	Asp	Ala
				165				170						175	
His	Leu	Ser	Ala	Glu	Asp	Phe	Asn	Ile	Tyr	Gly	His	Gly	Gly	Arg	Gln
			180					185					190		
Phe	Trp	Leu	Val	Ser	Ser	Cys	Phe	Phe	Phe	Leu	Val	Tyr	Ser	Leu	Val
	195					200						205			
Val	Ile	Leu	Pro	Lys	Thr	Pro	Leu	Lys	Glu	Arg	Ile	Ser	Leu	Pro	Ser
	210					215					220				
Arg	Arg	Ser	Phe	Tyr	Val	Tyr	Ala	Gly	Ile	Leu	Ala	Leu	Leu	Asn	Leu
225					230					235				240	
Leu	Gln	Gly	Leu	Gly	Ser	Val	Leu	Leu	Cys	Phe	Asp	Ile	Ile	Glu	Gly
				245					250					255	
Leu	Cys	Cys	Val	Asp	Ala	Thr	Thr	Phe	Leu	Tyr	Phe	Ser	Phe	Phe	Ala
			260					265					270		
Pro	Leu	Ile	Tyr	Val	Ala	Phe	Leu	Arg	Gly	Phe	Phe	Gly	Ser	Glu	Pro
	275						280					285			
Lys	Ile	Leu	Phe	Xaa	Leu	Gln	Met	Pro	Ser	Gly	Arg	Asp	Arg	Gly	Ala
	290					295					300				
Arg	Cys	Thr	Pro	Thr	Pro	Ala	Leu	Arg	Cys	Gly	Pro	Ala	Gly	Gly	Pro
305					310					315				320	
Gly	Gly	Cys	Arg	Gly	Cys	Trp	Gly	Leu	Ser	Cys	Gln	Leu	Leu	Glu	His
				325				330						335	
Ala	Val	Arg	Leu	Cys	Arg	Arg	Gly	Gly	Leu	Pro	Gly				
			340					345							

&lt;210&gt; 5703

&lt;211&gt; 1496

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5703

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360

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&lt;210&gt; 5704

&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5704

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			20					25				30			
Glu	Gly	Ser	Val	Leu	Arg	Arg	Gly	Phe	Gln	Thr	Cys	Glu	His	Trp	Lys
		35					40					45			
Gln	Ile	Phe	Met	Glu	Ile	Val	Gly	Val	Gln	Ser	Ala	Leu	Cys	Gly	Leu
	50					55					60				
Val	Leu	Ser	Leu	Leu	Ile	Cys	Val	Ala	Ala	Val	Ala	Val	Phe	Thr	Thr



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His	Ile	Leu	Leu	Leu	Pro	Val	Leu	Leu	Ser	Ile	Leu	Gly	Ile	Val	
		85		90		95									
Cys	Leu	Val	Val	Thr	Ile	Met	Tyr	Trp	Ser	Gly	Trp	Glu	Met	Gly	Ala
		100		105		110									
Val	Glu	Ala	Ile	Ser	Leu	Ser	Ile	Leu	Val	Gly	Ser	Ser	Val	Asp	Tyr
		115		120		125									
Cys	Val	His	Leu	Val	Glu	Gly	Tyr	Leu	Leu	Ala	Gly	Glu	Asn	Leu	Pro
		130		135		140									
Pro	His	Gln	Ala	Glu	Asp	Ala	Arg	Thr	Gln	Arg	Gln	Trp	Arg	Thr	Leu
		145		150		155									
Glu	Ala	Val	Arg	His	Val	Gly	Val	Ala	Ile	Val	Ser	Ser	Ala	Leu	Thr
		165		170		175									
Thr	Val	Ile	Ala	Thr	Val	Pro	Leu	Phe	Phe	Cys	Ile	Ile	Ala	Pro	Phe
		180		185		190									
Ala	Lys	Phe	Gly	Lys	Ile	Val	Ala	Leu	Asn	Thr	Gly	Val	Ser	Ile	Leu
		195		200		205									
Tyr	Thr	Leu	Thr	Val	Ser	Thr	Ala	Leu	Leu	Gly	Ile	Met	Ala	Pro	Ser
		210		215		220									
Ser	Phe	Thr	Arg	Thr	Arg	Thr	Ser	Phe	Leu	Lys	Ala	Leu	Gly	Ala	Val
		225		230		235									
Leu	Leu	Ala	Gly	Ala	Leu	Gly	Leu	Gly	Ala	Cys	Leu	Val	Leu	Leu	Gln
		245		250		255									
Ser	Gly	Tyr	Lys	Ile	Pro	Leu	Pro	Ala	Gly	Ala	Ser	Leu			
		260		265											

&lt;210&gt; 5705

&lt;211&gt; 768

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5705

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<210> 5706  
 <211> 202  
 <212> PRT  
 <213> Homo sapiens

<400> 5706  
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 35 40 45  
 His Thr Asn Arg Thr Thr Ser Trp Ile Asp Pro Arg Asp Arg Tyr Thr  
 50 55 60  
 Lys Pro Leu Thr Phe Ala Asp Cys Ile Ser Asp Glu Leu Pro Leu Gly  
 65 70 75 80  
 Trp Glu Glu Ala Tyr Asp Pro Gln Val Gly Asp Tyr Phe Ile Asp His  
 85 90 95  
 Asn Thr Lys Thr Thr Gln Ile Glu Asp Pro Arg Val Gln Trp Arg Arg  
 100 105 110  
 Glu Gln Glu His Met Leu Lys Asp Tyr Leu Val Val Ala Gln Glu Ala  
 115 120 125  
 Leu Ser Ala Gln Lys Glu Ile Tyr Gln Val Lys Gln Gln Arg Leu Glu  
 130 135 140  
 Leu Ala Gln Gln Glu Tyr Gln Gln Leu His Ala Val Trp Glu His Lys  
 145 150 155 160  
 Leu Gly Ser Gln Val Ser Leu Val Ser Gly Ser Ser Ser Ser Lys  
 165 170 175  
 Tyr Asp Pro Glu Ile Leu Lys Ala Glu Ile Ala Thr Ala Val Gln Arg  
 180 185 190  
 Ala Trp Leu Ser Asp Pro Glu Glu Asn Arg  
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<210> 5707  
 <211> 6988  
 <212> DNA  
 <213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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&lt;211&gt; 145

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5712

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			35				40						45		

Ala Val Glu Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu Gly  
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 Pro Pro Leu Asn Ile His Tyr Leu Lys Leu Ile Asp Arg Glu Asn Phe  
 65 70 75 80  
 Val Asp Ile Val Asp Ala Lys Leu Lys Ile Pro Val Ser Gly Ser Lys  
 85 90 95  
 Ser Glu Gly Leu Leu Tyr Val His Ser Ser Arg Gly Gly Pro Phe Gln  
 100 105 110  
 Arg Trp His Leu Asp Glu Val Phe Leu Glu Leu Lys Asp Gly Gln Gln  
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 Glu  
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<210> 5713  
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 <212> DNA  
 <213> Homo sapiens

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 780  
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 960

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 1080  
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 1860  
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 1996

&lt;210&gt; 5714

&lt;211&gt; 408

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5714

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			20					25					30		
Val	Ser	Glu	Phe	Phe	Met	Asn	Ala	Lys	Lys	Asn	Lys	Pro	Glu	Trp	Arg
			35				40					45			
Glu	Glu	Gln	Met	Ala	Ser	Ile	Lys	Lys	Asp	Tyr	Tyr	Lys	Ala	Leu	Glu
			50			55					60				
Asp	Ala	Asp	Glu	Lys	Val	Gln	Leu	Ala	Asn	Gln	Ile	Tyr	Asp	Leu	Val
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Asp	Arg	His	Leu	Arg	Lys	Leu	Asp	Gln	Glu	Leu	Ala	Lys	Phe	Lys	Met

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180
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 480  
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&lt;210&gt; 5716

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5716

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 Glu Cys Leu His Thr Phe Cys Lys Ser Cys Ile Val Lys Tyr Leu Gln  
 35 40 45  
 Thr Ser Lys Tyr Cys Pro Met Cys Asn Ile Lys Ile His Glu Thr Gln  
 50 55 60  
 Pro Leu Leu Asn Leu Lys Leu Asp Arg Val Met Gln Asp Ile Val Tyr  
 65 70 75 80  
 Lys Leu Val Pro Gly Leu Gln Asp Ser Glu Glu Lys Arg Ile Arg Glu  
 85 90 95  
 Phe Tyr Gln Ser Arg Gly Leu Asp Arg Val Thr Gln Pro Thr Gly Glu  
 100 105 110  
 Glu Pro Ala Leu Ser Asn Leu Gly Leu Pro Phe Ser Ser Phe Asp His  
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 <212> DNA  
 <213> Homo sapiens

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 1419

&lt;210&gt; 5718

&lt;211&gt; 228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5718

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			20					25					30		
Thr	Val	His	Gly	Asn	Val	Ile	Thr	Thr	Asn	Thr	Ile	Phe	Glu	Asn	Leu
		35					40					45			
Trp	Phe	Ser	Cys	Ala	Thr	Asp	Ser	Leu	Gly	Val	Tyr	Asn	Cys	Trp	Glu
		50				55					60				
Phe	Pro	Ser	Met	Leu	Ala	Leu	Ser	Gly	Tyr	Ile	Gln	Ala	Cys	Arg	Ala
65				70						75				80	
Leu	Met	Ile	Thr	Ala	Ile	Leu	Leu	Gly	Phe	Leu	Gly	Leu	Leu	Leu	Gly
				85					90					95	
Ile	Ala	Gly	Leu	Arg	Cys	Thr	Asn	Ile	Gly	Gly	Leu	Glu	Leu	Ser	Arg
			100					105					110		
Lys	Ala	Lys	Leu	Ala	Ala	Thr	Ala	Gly	Ala	Leu	His	Ile	Leu	Ala	Gly
		115					120					125			
Ile	Cys	Gly	Met	Val	Ala	Ile	Ser	Trp	Tyr	Ala	Phe	Asn	Ile	Thr	Arg
	130					135					140				
Asp	Phe	Phe	Asp	Pro	Leu	Tyr	Pro	Gly	Thr	Lys	Tyr	Glu	Leu	Gly	Pro
145				150						155				160	
Ala	Leu	Tyr	Leu	Gly	Trp	Ser	Ala	Ser	Leu	Ile	Ser	Ile	Leu	Gly	Gly
				165					170					175	
Leu	Cys	Leu	Cys	Ser	Ala	Cys	Cys	Cys	Gly	Ser	Asp	Glu	Asp	Pro	Ala
			180					185					190		
Ala	Ser	Ala	Arg	Arg	Pro	Tyr	Gln	Ala	Pro	Val	Ser	Val	Met	Pro	Val
		195					200						205		
Ala	Thr	Ser	Asp	Gln	Glu	Gly	Asp	Ser	Ser	Phe	Gly	Lys	Tyr	Gly	Arg
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Asn	Ala	Tyr	Val												

225

&lt;210&gt; 5719

&lt;211&gt; 2267

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5719

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&lt;210&gt; 5720

&lt;211&gt; 455

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5720

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			20					25					30		
His	Asp	Val	Pro	Gln	Gly	Leu	His	Pro	Pro	Val	Ala	Pro	Ser	Gly	Gly
		35					40					45			
Val	Asp	Ser	Ala	Val	Ala	Ala	Leu	Leu	Leu	Arg	Arg	Arg	Gly	Tyr	Gln
	50					55					60				
Val	Thr	Gly	Val	Phe	Met	Lys	Asn	Trp	Asp	Ser	Leu	Asp	Glu	His	Gly
65					70					75				80	
Val	Cys	Thr	Ala	Asp	Lys	Asp	Cys	Glu	Asp	Ala	Tyr	Arg	Val	Cys	Gln
			85					90						95	
Ile	Leu	Asp	Ile	Pro	Phe	His	Gln	Val	Ser	Tyr	Val	Lys	Glu	Tyr	Trp
			100					105					110		
Asn	Asp	Val	Phe	Ser	Asp	Phe	Leu	Asn	Glu	Tyr	Glu	Lys	Gly	Arg	Thr
		115					120						125		
Pro	Asn	Pro	Asp	Ile	Val	Cys	Asn	Lys	His	Ile	Lys	Phe	Ser	Cys	Phe

130	135	140
Phe His Tyr Ala Val Asp Asn Leu Gly Ala Asp Ala Ile Ala Thr Gly		
145	150	155
His Tyr Ala Arg Thr Ser Leu Glu Asp Glu Glu Val Phe Glu Gln Lys		160
	165	170
His Val Lys Lys Pro Glu Gly Leu Phe Arg Asn Arg Phe Glu Val Arg		175
	180	185
Asn Ala Val Lys Leu Leu Gln Ala Ala Asp Ser Phe Lys Asp Gln Thr		190
	195	200
Phe Phe Leu Ser Gln Val Ser Gln Asp Ala Leu Arg Arg Thr Ile Phe		205
	210	215
Pro Leu Gly Gly Leu Thr Lys Glu Phe Val Lys Lys Ile Ala Ala Glu		220
	225	230
Asn Arg Leu His His Val Leu Gln Lys Lys Glu Ser Met Gly Met Cys		235
	240	245
Phe Ile Gly Lys Arg Asn Phe Glu His Phe Leu Leu Gln Tyr Leu Gln		250
	255	260
Pro Arg Pro Gly His Phe Ile Ser Ile Glu Asp Asn Lys Val Leu Gly		265
	270	275
Thr His Lys Gly Trp Phe Leu Tyr Thr Leu Gly Gln Arg Ala Asn Ile		280
	285	290
Gly Gly Leu Arg Glu Pro Trp Tyr Val Val Glu Lys Asp Ser Val Lys		295
	300	305
Gly Asp Val Phe Val Ala Pro Arg Thr Asp His Pro Ala Leu Tyr Arg		310
	315	320
Asp Leu Leu Arg Thr Ser Arg Val His Trp Ile Ala Glu Glu Pro Pro		325
	330	335
Ala Ala Leu Val Arg Asp Lys Met Met Glu Cys His Phe Arg Phe Arg		340
	345	350
His Gln Met Ala Leu Val Pro Cys Val Leu Thr Leu Asn Gln Asp Gly		355
	360	365
Thr Val Trp Val Thr Ala Val Gln Ala Val Arg Ala Leu Ala Thr Gly		370
	375	380
Gln Phe Ala Val Phe Tyr Lys Gly Asp Glu Cys Leu Gly Ser Gly Lys		385
	390	395
Ile Leu Arg Leu Gly Pro Ser Ala Tyr Thr Leu Gln Lys Gly Gln Arg		400
	405	410
Arg Ala Gly Met Ala Thr Glu Ser Pro Ser Asp Ser Pro Glu Asp Gly		415
	420	425
Pro Gly Leu Ser Pro Leu Leu		430
	435	440
	445	
450	455	

&lt;210&gt; 5721

&lt;211&gt; 400

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5721

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 <211> 80  
 <212> PRT  
 <213> Homo sapiens

<400> 5722  
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 Ala Phe Leu Lys Arg Lys Glu Tyr Gly Ile Ala Leu Pro Cys Leu Leu  
 35 40 45  
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 65 70 75 80

<210> 5723  
 <211> 376  
 <212> DNA  
 <213> Homo sapiens

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<210> 5724  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 5724  
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Met Gly Val Pro Glu Val Trp Gly Leu Leu Ser Lys Glu Trp Trp His
35           40           45
Ala Gly Leu Ser Gly Ala Met Trp His Gly Trp Trp Ala Ser Ile Cys
50           55           60
Ser Gly Cys Leu Leu Ser Asp Glu Gly Thr Gly Cys Pro Cys Leu Pro
65           70           75           80
Gln His Ala Pro Cys Pro Ala Cys Pro Leu Pro Cys Met Ser Pro Val
85           90           95
Leu His Ile Pro Cys Pro Ala Gly Pro Ile Leu Ser Cys Met Ser Pro
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Val Leu His Met Pro Cys Pro Ala Leu Leu Leu His Ala
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&lt;210&gt; 5725

&lt;211&gt; 1160

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5725

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960

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 <211> 273  
 <212> PRT  
 <213> Homo sapiens

<400> 5726  
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 20 25 30  
 Ser Arg Pro Pro Gly Ser Arg Pro Thr Ala His Gly Arg Ala Trp Gly  
 35 40 45  
 Ala Ser Arg Ala Arg Arg Pro Ala Pro Gly Gly Pro Phe Pro Gly Val  
 50 55 60  
 Ser Thr Asp Asp Ser Ala Val Pro Pro Pro Gly Gly Ala Pro His Phe  
 65 70 75 80  
 Gly His Tyr Arg Thr Gly Gly Gly Ala Met Gly Leu Arg Ser Ala Ser  
 85 90 95  
 Val Ser Ser Val Ala Gly Met Gly Met Asp Pro Ser Thr Ala Gly Gly  
 100 105 110  
 Val Pro Phe Gly Leu Tyr Thr Pro Ala Ser Arg Gly Thr Gly Asp Ser  
 115 120 125  
 Glu Arg Ala Pro Gly Gly Gly Ser Ala Ser Asp Ser Thr Tyr Ala  
 130 135 140  
 His Gly Asn Gly Tyr Gln Glu Thr Gly Gly Gly His His Arg Asp Gly  
 145 150 155 160  
 Met Leu Tyr Leu Gly Ser Arg Ala Ser Leu Ala Asp Ala Leu Pro Leu  
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 His Ile Ala Pro Arg Trp Phe Ser Ser His Ser Gly Phe Lys Cys Pro  
 180 185 190  
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 Lys Asp Ala Gly Glu Cys Val Ile Cys Leu Glu Glu Leu Leu Gln Gly  
 225 230 235 240  
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<210> 5727  
 <211> 1237

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5727

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1237

&lt;210&gt; 5728

&lt;211&gt; 368

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5728

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			20					25					30				
Lys	Tyr	Arg	Asp	Ile	Asp	Glu	Asp	Glu	Ile	Leu	Arg	Thr	Leu	Ser	Pro		
		35					40					45					
Glu	Glu	Leu	Glu	Gln	Leu	Asp	Cys	Glu	Leu	Gln	Glu	Met	Asp	Pro	Glu		
	50					55					60						
Asn	Met	Leu	Leu	Pro	Ala	Gly	Leu	Arg	Gln	Arg	Asp	Gln	Thr	Lys	Lys		
65				70					75						80		
Ser	Pro	Thr	Gly	Pro	Leu	Asp	Arg	Glu	Ala	Leu	Leu	Gln	Tyr	Leu	Glu		
			85					90					95				
Gln	Gln	Ala	Leu	Glu	Val	Lys	Glu	Arg	Asp	Asp	Leu	Val	Pro	Phe	Thr		
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Gly	Glu	Lys	Lys	Gly	Lys	Pro	Tyr	Ile	Gln	Pro	Lys	Arg	Glu	Ile	Pro		
		115					120					125					
Ala	Glu	Glu	Gln	Ile	Thr	Leu	Glu	Pro	Glu	Leu	Glu	Glu	Ala	Leu	Ala		
	130					135					140						
His	Ala	Thr	Asp	Ala	Glu	Met	Cys	Asp	Ile	Ala	Ala	Ile	Leu	Asp	Met		
145				150						155					160		
Tyr	Thr	Leu	Met	Ser	Asn	Lys	Gln	Tyr	Tyr	Asp	Ala	Leu	Cys	Ser	Gly		
			165					170					175				
Glu	Ile	Cys	Asn	Thr	Glu	Gly	Ile	Ser	Ser	Val	Val	Gln	Pro	Asp	Lys		
			180					185					190				
Tyr	Lys	Pro	Val	Pro	Asp	Glu	Pro	Pro	Asn	Pro	Thr	Asn	Ile	Glu	Glu		
		195				200						205					
Ile	Leu	Lys	Arg	Val	Arg	Ser	Asn	Asp	Lys	Glu	Leu	Glu	Glu	Val	Asn		
	210					215					220						
Leu	Asn	Asn	Ile	Gln	Asp	Ile	Pro	Ile	Pro	Met	Leu	Ser	Glu	Leu	Cys		
225				230						235					240		
Glu	Ala	Met	Lys	Ala	Asn	Thr	Tyr	Val	Arg	Ser	Phe	Ser	Leu	Val	Ala		
			245					250					255				
Thr	Arg	Ser	Gly	Asp	Pro	Ile	Ala	Asn	Ala	Val	Ala	Asp	Met	Leu	Arg		
			260					265					270				
Glu	Asn	Arg	Ser	Leu	Gln	Ser	Leu	Asn	Ile	Glu	Ser	Asn	Phe	Ile	Ser		
		275				280						285					
Ser	Thr	Gly	Leu	Met	Ala	Val	Leu	Lys	Ala	Val	Arg	Glu	Asn	Ala	Thr		
	290					295						300					
Leu	Thr	Glu	Leu	Arg	Val	Asp	Asn	Gln	Arg	Gln	Trp	Pro	Gly	Asp	Ala		
305				310						315					320		
Val	Glu	Met	Glu	Met	Ala	Thr	Val	Leu	Glu	Gln	Cys	Pro	Ser	Ile	Val		
			325					330					335				
Arg	Phe	Gly	Tyr	His	Phe	Thr	Gln	Gln	Gly	Pro	Arg	Ala	Arg	Ala	Ala		
		340					345					350					
Gln	Ala	Met	Thr	Arg	Asn	Asn	Glu	Leu	Arg	Arg	Gln	Gln	Lys	Lys	Arg		
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&lt;210&gt; 5729

&lt;211&gt; 381

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5729

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 240  
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<210> 5730

<211> 64

<212> PRT

<213> Homo sapiens

<400> 5730

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			20					25				30			
Ser	Ser	Ala	Gly	Thr	Ala	Ser	Ser	Ser	Pro	Ala	Ser	Gly	Thr	Cys	Gly
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Gly	Ser	Ser	Ser	Ala	Gly	Gly	Ser	Ser	Ala	Arg	Phe	Cys	Thr	Lys	Phe
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<210> 5731

<211> 891

<212> DNA

<213> Homo sapiens

<400> 5731

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720  
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<210> 5732

<211> 193

<212> PRT

<213> Homo sapiens

<400> 5732

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		20					25					30			
Leu	Thr	Lys	Ala	Ala	Thr	Ser	Gly	Ile	Leu	Ser	Ala	Leu	Gly	Asn	Phe
		35					40					45			
Leu	Ala	Gln	Met	Ile	Glu	Lys	Lys	Arg	Lys	Lys	Glu	Asn	Ser	Arg	Ser
	50					55					60				
Leu	Asp	Val	Gly	Gly	Pro	Leu	Arg	Tyr	Ala	Val	Tyr	Gly	Phe	Phe	Phe
65					70				75					80	
Thr	Gly	Pro	Leu	Ser	His	Phe	Phe	Tyr	Phe	Phe	Met	Glu	His	Trp	Ile
			85					90						95	
Pro	Pro	Glu	Val	Pro	Leu	Ala	Gly	Leu	Arg	Arg	Leu	Leu	Leu	Asp	Arg
		100					105						110		
Leu	Val	Phe	Ala	Pro	Ala	Phe	Leu	Met	Leu	Phe	Phe	Leu	Ile	Met	Asn
		115					120					125			
Phe	Leu	Glu	Gly	Lys	Asp	Ala	Ser	Ala	Phe	Ala	Ala	Lys	Met	Arg	Gly
	130					135						140			
Gly	Phe	Trp	Pro	Ala	Leu	Arg	Met	Asn	Trp	Arg	Val	Trp	Thr	Pro	Leu
145					150					155				160	
Gln	Phe	Ile	Asn	Ile	Asn	Tyr	Val	Pro	Leu	Lys	Phe	Arg	Val	Leu	Phe
			165					170						175	
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Lys

<210> 5733

<211> 950

<212> DNA

<213> Homo sapiens

<400> 5733

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<210> 5734  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 5734  
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 Leu Cys Leu Leu Phe Ala Lys Leu Val Ser Tyr Thr Phe Leu Phe Trp  
 35 40 45  
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<210> 5735  
 <211> 4241  
 <212> DNA  
 <213> Homo sapiens

<400> 5735

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180  
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240  
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1920  
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2160  
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2640  
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2700  
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2760  
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&lt;210&gt; 5736

&lt;211&gt; 327

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5736

Met	Pro	Gly	Pro	Thr	Gln	Thr	Leu	Ser	Pro	Asn	Gly	Glu	Asn	Asn	Asn
1			5					10					15		
Asp	Ile	Ile	Gln	Asp	Asn	Asn	Gly	Thr	Ile	Ile	Pro	Phe	Arg	Lys	His
		20					25					30			
Thr	Val	Arg	Gly	Glu	Arg	Ser	Tyr	Ser	Trp	Gly	Met	Ala	Val	Asn	Val
		35				40					45				
Tyr	Ser	Thr	Ser	Ile	Thr	Gln	Glu	Thr	Met	Ser	Arg	His	Asp	Ile	Ile
	50				55					60					
Ala	Trp	Val	Asn	Asp	Ile	Val	Ser	Leu	Asn	Tyr	Thr	Lys	Val	Glu	Gln
65				70					75					80	
Leu	Cys	Ser	Gly	Ala	Ala	Tyr	Cys	Gln	Phe	Met	Asp	Met	Leu	Phe	Pro
			85					90					95		
Gly	Cys	Ile	Ser	Leu	Lys	Lys	Val	Lys	Phe	Gln	Ala	Lys	Leu	Glu	His

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<210> 5738
<211> 99
<212> PRT
<213> Homo sapiens
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&lt;400&gt; 5738

```

Met Leu Pro Pro Trp Pro Ile Ser Ser His Gln Val Arg Met Ala Leu
 1           5           10           15
Gln His Leu Pro Leu Arg Leu Gln Leu Pro Ser Gln Val His Gln Glu
      20           25           30
Thr Thr Gly His His Trp Gln Trp Arg Gly Asp Met Glu His Gly Leu
      35           40           45
Gly Ser Arg Leu Leu Ala Pro Asp Val Gln Pro Gln Thr Pro Pro Val
      50           55           60
Met Gly Glu Val Trp Arg Pro Val Gln Leu Ser Gln Gly His Ala His
65           70           75           80
Leu Ser Leu Gly Ser Val Gly Lys Ala Tyr Pro Lys Ser His Ile Gln
      85           90           95
Gly Gly Xaa

```

&lt;210&gt; 5739

&lt;211&gt; 780

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5739

```

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120
ttactcgtta attggaaaca cctctagcct gtactaaatt tccatattta tttggcccg
180
ttcaaagtcc tctattctct gctcatctgt ccacatctaa gtgctttaac tattgtggct
240
ttataaaata ttccaatatc ccataggacc ttatccttag tacttccat tttaaagttt
300
tccttgca ga caggtacttt aaataccatc tcacagcacc catcatgtcc tatcttcagg
360
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420
gagccagcac catggcccggt ccctgagcat gtccagcaaa ccctgccagg ctctgcagct
480
cctgagcacc ctgccttcgg gtctgccagt gtgtgggggc cagaagagaa aaacaacca
540
gggggaatgc ctccttcccc cagcaggaaa gcagcttgggt catcatctgt ctgaaagcag
600
gtgctgcagc agctggcaac aaagccactc tgaaaggagc tgtgtgcact gcctgtctgg
660
aaggccatgc cagagtccat cgttgcctcc accctacctg tgcaggaaac ctggacatca
720
ccacttcaag gccctacctt cctttctggg cagagcccaa ccacaataaa caggacgcgt
780

```

&lt;210&gt; 5740

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5740

```

Met Ile Arg Lys Gln Ser Gln His His Gly Pro Ser Leu Ser Met Ser
 1           5           10           15
Ser Lys Pro Cys Gln Ala Leu Gln Leu Leu Ser Thr Leu Pro Ser Gly
 20           25           30
Leu Pro Val Cys Gly Gly Gln Lys Arg Lys Thr Thr Gln Gly Glu Cys
 35           40           45
Leu Leu Pro Pro Ala Gly Lys Gln Leu Gly His His Leu Ser Glu Ser
 50           55           60
Arg Cys Cys Ser Ser Trp Gln Gln Ser His Ser Glu Arg Ser Cys Val
 65           70           75           80
His Cys Leu Ser Gly Arg Pro Cys Gln Ser Pro Ser Leu Pro Pro Pro
 85           90           95
Tyr Leu Cys Arg Lys Pro Gly His His His Phe Lys Ala Leu Pro Ser
100          105          110
Phe Leu Gly Arg Ala Gln Pro Gln
115          120

```

&lt;210&gt; 5741

&lt;211&gt; 2444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5741

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60
gcgggttggcg ggggcagtc cagcgtgag gaggtcggcg caggctacaa cagtgaggac
120
gagtatgagg cggctgcagc acgcatcgag gctatggacc ctgccactgt cgagcagcag
180
gagcattggt ttgaaaaggc cctacgagac aagaagggt tcatcatcaa gcagatgaag
240
gaggatggcg cctgtctctt ccgggctgta gctgaccagg tgtatggaga ccaggacatg
300
catgagggtt tgcgaaagca ttgcatggac tatctgatga agaatgccga ctacttctcc
360
aactatgtca cagaggactt taccacctac attaacagga agcggaaaaa caattgccat
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660
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720
aagaaacggg ccacagactg ggaggccaca aatgaagcca tcgaggagca ggtggctcgg
780
gaatcctacc tgcagtgggt gcgggatcag gagaaacagg ctccgccagg cagaggcccc
840
agccagcccc ggaaagccag cgccacatgc agttcggcca cagcagcagc ctccagtggc
900

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960  
cctgagctgc atgctgaatt gggcatgaag ccccttccc caggcactgt tttagctctt  
1020  
gccaaacctc cttcgccctg tgcgccaggt acaagcagtc agttctcggc aggggccgac  
1080  
cgggcaactt ccccccttgt gtccctctac cctgctttgg agtgccgggc cctcattcag  
1140  
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1200  
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1320  
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1740  
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1920  
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1980  
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2400  
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2444

&lt;210&gt; 5742

&lt;211&gt; 427

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5742

Gly Gly Cys Cys Ser Gly Pro Gly His Ser Lys Arg Arg Arg Gln Ala  
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 Pro Gly Val Gly Ala Val Gly Gly Gly Ser Pro Glu Arg Glu Glu Val  
 20 25 30  
 Gly Ala Gly Tyr Asn Ser Glu Asp Glu Tyr Glu Ala Ala Ala Ala Arg  
 35 40 45  
 Ile Glu Ala Met Asp Pro Ala Thr Val Glu Gln Gln Glu His Trp Phe  
 50 55 60  
 Glu Lys Ala Leu Arg Asp Lys Lys Gly Phe Ile Ile Lys Gln Met Lys  
 65 70 75 80  
 Glu Asp Gly Ala Cys Leu Phe Arg Ala Val Ala Asp Gln Val Tyr Gly  
 85 90 95  
 Asp Gln Asp Met His Glu Val Val Arg Lys His Cys Met Asp Tyr Leu  
 100 105 110  
 Met Lys Asn Ala Asp Tyr Phe Ser Asn Tyr Val Thr Glu Asp Phe Thr  
 115 120 125  
 Thr Tyr Ile Asn Arg Lys Arg Lys Asn Asn Cys His Gly Asn His Ile  
 130 135 140  
 Glu Met Gln Ala Met Ala Glu Met Tyr Asn Arg Pro Val Glu Val Tyr  
 145 150 155 160  
 Gln Tyr Ser Thr Glu Pro Ile Asn Thr Phe His Gly Ile His Gln Asn  
 165 170 175  
 Glu Asp Glu Pro Ile Arg Val Ser Tyr His Arg Asn Ile His Tyr Asn  
 180 185 190  
 Ser Val Val Asn Pro Asn Lys Ala Thr Ile Gly Val Gly Leu Gly Leu  
 195 200 205  
 Pro Ser Phe Lys Pro Gly Phe Ala Glu Gln Ser Leu Met Lys Asn Ala  
 210 215 220  
 Ile Lys Thr Ser Glu Glu Ser Trp Ile Glu Gln Gln Met Leu Glu Asp  
 225 230 235 240  
 Lys Lys Arg Ala Thr Asp Trp Glu Ala Thr Asn Glu Ala Ile Glu Glu  
 245 250 255  
 Gln Val Ala Arg Glu Ser Tyr Leu Gln Trp Leu Arg Asp Gln Glu Lys  
 260 265 270  
 Gln Ala Arg Gln Val Arg Gly Pro Ser Gln Pro Arg Lys Ala Ser Ala  
 275 280 285  
 Thr Cys Ser Ser Ala Thr Ala Ala Ala Ser Ser Gly Leu Glu Glu Trp  
 290 295 300  
 Thr Ser Arg Ser Pro Arg Gln Arg Ser Ser Ala Ser Ser Pro Glu His  
 305 310 315 320  
 Pro Glu Leu His Ala Glu Leu Gly Met Lys Pro Pro Ser Pro Gly Thr  
 325 330 335  
 Val Leu Ala Leu Ala Lys Pro Pro Ser Pro Cys Ala Pro Gly Thr Ser  
 340 345 350  
 Ser Gln Phe Ser Ala Gly Ala Asp Arg Ala Thr Ser Pro Leu Val Ser  
 355 360 365  
 Leu Tyr Pro Ala Leu Glu Cys Arg Ala Leu Ile Gln Gln Met Ser Pro  
 370 375 380  
 Ser Ala Phe Gly Leu Asn Asp Trp Asp Asp Asp Glu Ile Leu Ala Ser



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5745

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120
aggaagtgat gcagggcagg taaacagctg gtgctcagca gcgagaggac gcgtcactct
180
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240
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300
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360
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420
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660
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720
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780
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840
gtcccatgg
849

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&lt;210&gt; 5746

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5746

```

Met Thr Ser Pro Pro Pro Asp Leu Pro Arg Val Leu Val Ser Leu Ser
1          5          10          15
Ala Gly Gly Pro Leu Cys Val Phe Val Gln Phe Cys Cys Met Gly Phe
20          25          30
Val Thr Gln Lys Leu Met Leu Arg Lys Ala Ser Leu Gly Pro Leu Pro
35          40          45
Arg Ala Ser Glu Arg Pro Gly Val Pro Val Phe Leu Glu Met Gly Pro
50          55          60
Ser Ala Ala Gly Cys Glu Ala Leu Arg Ser Ile Thr Gly Arg Ala Trp
65          70          75          80
Arg Trp Trp Pro Pro Gly Thr Thr Leu Ser Cys Leu Phe Thr Phe His
85          90          95
Tyr Gln Val Phe Ser Gly His Tyr Asp Leu Phe Pro Tyr Asn Ser Asp

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	100		105		110
Leu	Cys	Ile	Leu	Leu	Trp
			Pro	Ala	Val
			Ser	Ala	Gly
			Gly	Gly	Ser
			Gln	Arg	
	115		120		125
Gly	Thr	Gly	Arg	Ala	Ser
			Pro	Cys	Arg
			Thr	Ala	Glu
	130		135		140

<210> 5747  
 <211> 1999  
 <212> DNA  
 <213> Homo sapiens

<400> 5747  
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 420  
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 480  
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 660  
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 780  
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 840  
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 900  
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 960  
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 1020  
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 1080  
 aagctcagcc cgtctggcca ccagaatctc tttctgagtc caaatgcctc cccgtgcaca  
 1140  
 agtccttgga gcagccctt ggccaacgc aaaggcggtt ccagaaagtc ccactggcg  
 1200  
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 1260

tcctctgaca gcagcgtcac tccctctggc agccccctggg tccggaggcg tcgccaagcc  
 1320  
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 1380  
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 1620  
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 1860  
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 1920  
 tgggtgtcttg taggaccaa tcgatgttac ctgtcaagta aataaataat aaaacaccca  
 1980  
 aaaaaaaaaa aaaaaaaaaa  
 1999

&lt;210&gt; 5748

&lt;211&gt; 492

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5748

Xaa	Met	Ala	Gln	Ser	Gly	Gly	Glu	Ala	Arg	Pro	Gly	Pro	Lys	Thr	Ala
1			5						10					15	
Val	Gln	Ile	Arg	Val	Ala	Ile	Gln	Glu	Ala	Glu	Asp	Val	Asp	Glu	Leu
			20					25					30		
Glu	Asp	Glu	Glu	Glu	Gly	Ala	Glu	Thr	Arg	Gly	Ala	Gly	Asp	Pro	Ala
			35				40					45			
Arg	Tyr	Leu	Ser	Pro	Gly	Trp	Gly	Ser	Ala	Ser	Glu	Glu	Glu	Pro	Ser
			50			55					60				
Arg	Gly	His	Ser	Gly	Thr	Thr	Ala	Ser	Gly	Gly	Glu	Asn	Glu	Arg	Glu
65					70					75				80	
Asp	Leu	Glu	Gln	Glu	Trp	Lys	Pro	Pro	Asp	Glu	Glu	Leu	Ile	Lys	Lys
			85						90					95	
Leu	Val	Asp	Gln	Ile	Glu	Phe	Tyr	Phe	Ser	Asp	Glu	Asn	Leu	Glu	Lys
			100					105					110		
Asp	Ala	Phe	Leu	Leu	Lys	His	Val	Arg	Arg	Asn	Lys	Leu	Gly	Tyr	Val
			115				120					125			
Ser	Val	Lys	Leu	Leu	Thr	Ser	Phe	Lys	Lys	Val	Lys	His	Leu	Thr	Arg
			130			135					140				
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&lt;211&gt; 522

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5753

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&lt;213&gt; Homo sapiens

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&lt;210&gt; 5756

&lt;211&gt; 415

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5756

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Ala	Ala	Leu	Leu	Ala	Gln	Asp	Tyr	Cys	Asp	Ala	Ile	Asp	Leu	Asn	Leu
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Gly	Cys	Pro	Gln	Met	Ile	Ala	Lys	Arg	Gly	His	Tyr	Gly	Ala	Phe	Leu
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Lys	Leu	Ser	Val	Pro	Val	Thr	Cys	Lys	Ile	Arg	Val	Phe	Pro	Glu	Ile
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Asp	Lys	Thr	Val	Arg	Tyr	Ala	Gln	Met	Leu	Glu	Lys	Ala	Gly	Cys	Gln
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Arg Cys Leu Arg Asp Thr Gly Val Gln Gly Val Met Ser Ala Glu Gly		160
165	170	175
Asn Leu His Asn Pro Ala Leu Phe Glu Gly Arg Ser Pro Ala Val Trp		
180	185	190
Glu Leu Ala Glu Glu Tyr Leu Asp Ile Val Arg Glu His Pro Cys Pro		
195	200	205
Leu Ser Tyr Val Arg Ala His Leu Phe Lys Leu Trp His His Thr Leu		
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Gln Val His Gln Glu Leu Arg Glu Glu Leu Ala Lys Val Lys Thr Leu		
225	230	235
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245	250	255
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260	265	270
His Trp Ile Cys Gln Pro Tyr Ile Arg Pro Gly Pro Arg Glu Gly Ser		
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290	295	300
Gly Gly Thr Glu Val Leu Ser Lys Asn Lys Gln Lys Lys Gln Leu Arg		
305	310	315
Asn Pro His Lys Thr Phe Asp Pro Ser Leu Lys Pro Lys Tyr Ala Lys		320
325	330	335
Cys Asp Gln Cys Gly Asn Pro Lys Gly Asn Arg Cys Val Phe Ser Leu		
340	345	350
Cys Arg Gly Cys Cys Lys Lys Arg Ala Ser Lys Glu Thr Ala Asp Cys		
355	360	365
Pro Gly His Gly Leu Leu Phe Lys Thr Lys Leu Glu Lys Ser Leu Ala		
370	375	380
Trp Lys Glu Ala Gln Pro Glu Leu Gln Glu Pro Gln Pro Ala Ala Pro		
385	390	395
Gly Thr Pro Gly Gly Phe Ser Glu Val Met Gly Ser Ala Leu Ala		400
405	410	415

&lt;210&gt; 5757

&lt;211&gt; 2362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5757

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&lt;210&gt; 5758

&lt;211&gt; 440

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5758

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			20					25					30		
Asp	Gly	Ala	Leu	Glu	Asn	Ala	Gln	Asn	Leu	Gly	Tyr	Gln	Gly	Ala	Lys
		35					40					45			
Phe	Ala	Trp	Glu	Ser	Ala	Asp	Ser	Gly	Leu	Glu	Val	Cys	Pro	Glu	Asp
		50				55					60				
Ile	Tyr	Gly	Val	Gln	Glu	Val	His	Val	Asn	Gly	Ala	Val	Val	Leu	Ala
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Phe	Glu	Leu	Tyr	Tyr	His	Thr	Thr	Gln	Asp	Leu	Gln	Leu	Phe	Arg	Glu
				85					90					95	
Gly	Gly	Gly	Trp	Glu	Val	Val	Arg	Ala	Val	Ala	Lys	Phe	Trp	Cys	Ser
			100					105					110		
Arg	Val	Glu	Trp	Ser	Pro	Arg	Glu	Glu	Lys	Tyr	His	Leu	Arg	Gly	Val
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Met	Ser	Pro	Asp	Glu	Tyr	His	Ser	Gly	Val	Asn	Asn	Ser	Val	Tyr	Thr
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Asn	Val	Leu	Val	Gln	Asn	Ser	Leu	Arg	Phe	Ala	Ala	Ala	Leu	Ala	Gln
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Asp	Leu	Gly	Leu	Pro	Ile	Pro	Ser	Gln	Trp	Leu	Ala	Val	Ala	Asp	Lys
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Ile	Lys	Val	Pro	Phe	Asp	Val	Glu	Gln	Asn	Phe	His	Pro	Glu	Phe	Asp
			180					185					190		
Gly	Tyr	Glu	Pro	Gly	Glu	Val	Val	Lys	Gln	Ala	Asp	Val	Val	Leu	Leu
		195					200					205			
Gly	Tyr	Pro	Val	Pro	Phe	Ser	Leu	Ser	Pro	Asp	Val	Arg	Arg	Lys	Asn
		210				215					220				
Leu	Glu	Ile	Tyr	Glu	Ala	Val	Thr	Ser	Pro	Gln	Gly	Pro	Ala	Met	Thr
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Trp	Ser	Met	Phe	Ala	Val	Gly	Trp	Met	Glu	Leu	Lys	Asp	Ala	Val	Arg

Ala	Arg	Gly	Leu	245	Asp	Arg	Ser	Phe	250	Ala	Asn	Met	Ala	Glu	255	Pro	Phe
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Lys	Val	Trp	Thr	275	Gly	Phe	Leu	Gln	280	Ala	Val	Val	Phe	Gly	285	Cys	Thr
Thr	Gly	Met	Gly	290	Gly	Phe	Leu	Gln	295	Ala	Val	Val	Phe	Gly	300	Cys	Thr
Phe	Arg	Val	Thr	305	Arg	Ala	Gly	Val	310	Thr	Phe	Asp	Pro	Val	315	Cys	Leu
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Gln	Ser	Arg	Leu	370	Ser	Leu	Leu	Pro	375	Gly	His	Lys	Val	Ser	380	Phe	Pro
Ser	Ala	Gly	Arg	385	Ile	Gln	Met	Ser	390	Pro	Pro	Lys	Leu	Pro	395	Gly	Ser
Ser	Ser	Glu	Phe	405	Pro	Gly	Arg	Thr	410	Phe	Ser	Asp	Val	Arg	415	Asp	Pro
Gln	Ser	Pro	Leu	420	Trp	Val	Thr	Leu	425	Gly	Ser	Ser	Ser	Pro	430	Thr	Glu
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&lt;210&gt; 5759

&lt;211&gt; 1333

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5759

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 1333

&lt;210&gt; 5760

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5760

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Asp	Ser	Val	Glu	Ser	Ala	Val	Asn	Ala	Glu	Arg	Gly	Gly	Ala	Asp	Arg
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Ile	Glu	Leu	Cys	Ser	Gly	Leu	Ser	Glu	Gly	Gly	Thr	Thr	Pro	Ser	Met
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Met	Ile	Arg	Pro	Arg	Gly	Gly	Asp	Phe	Leu	Tyr	Ser	Asp	Arg	Glu	Ile
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Glu	Val	Met	Lys	Ala	Asp	Ile	Arg	Leu	Ala	Lys	Leu	Tyr	Gly	Ala	Asp
			100					105					110		
Gly	Leu	Val	Phe	Gly	Ala	Leu	Thr	Glu	Asp	Gly	His	Ile	Asp	Lys	Glu
		115					120					125			
Leu	Cys	Met	Ser	Leu	Met	Ala	Ile	Cys	Arg	Pro	Leu	Pro	Val	Thr	Phe
	130					135					140				
His	Arg	Ala	Phe	Asp	Met	Val	His	Asp	Pro	Met	Ala	Ala	Leu	Glu	Thr
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Leu	Leu	Thr	Leu	Gly	Phe	Glu	Arg	Val	Leu	Thr	Ser	Gly	Cys	Asp	Ser
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<210> 5762  
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35 40 45  
Ser Ala Val Leu Gln Asp Ser Glu Ser Ile Leu Ala Asp Leu Gln Ala  
50 55 60  
Tyr Lys Gly Ala Gly Pro Glu Ile Arg Asp Ala Ile Gln Asn Pro Asn  
65 70 75 80  
Asp Ile Gln Leu Gln Glu Lys Ala Trp Asn Ala Val Cys Pro Leu Val  
85 90 95  
Val Arg Leu Lys Arg Phe Tyr Glu Phe Ser Ile Arg Leu Glu Lys Ala  
100 105 110  
Leu Gln Ser Leu Leu Glu Ser Leu Thr Cys Pro Pro Tyr Thr Pro Thr  
115 120 125  
Gln His Leu Glu Arg Glu Gln Ala Leu Ala Lys Glu Phe Ala Glu Ile  
130 135 140  
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145 150 155 160  
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165 170 175  
Ile Asn Asn Met His Leu Asp Ile Glu Asn Glu Val Asn Asn Glu Met  
180 185 190  
Ala Asn Arg Met Ser Leu Phe Tyr Ala Glu Ala Thr Pro Met Leu Lys  
195 200 205  
Thr Leu Ser Asn Ala Thr Met His Phe Val Ser Glu Asn Lys Thr Leu  
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225 230 235 240  
Lys Val Met Leu Glu Thr Pro Glu Tyr Arg Ser Arg Phe Thr Ser Glu

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&lt;210&gt; 5764

&lt;211&gt; 466

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5764

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&lt;210&gt; 5765

&lt;211&gt; 3220

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5765

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<212> PRT

<213> Homo sapiens

<400> 5766

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&lt;210&gt; 5768

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&lt;213&gt; Homo sapiens

&lt;400&gt; 5768

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Cys	Arg	Phe	Leu	Cys	Trp	Ser	Arg	Glu	Arg	Leu	Thr	Tyr	Phe	Leu	Glu
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Ser	Glu	Pro	Phe	Leu	Tyr	Glu	Ile	Phe	Arg	Tyr	Leu	Ile	Gly	Lys	Asp
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Ile	Thr	Asn	Lys	Leu	Tyr	Ser	Leu	Asn	Asp	Pro	Thr	Leu	Asn	Asp	Lys
		260						265					270		
Lys	Ala	Lys	Lys	Leu	Glu	His	Gln	Leu	Ser	Leu	Cys	Thr	Gln	Ile	Ser
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Met	Leu	Glu	Met	Arg	Asn	Ser	Ile	Ala	Ser	Ser	Ser	Asp	Ser	Asp	Asp
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Gly	Leu	His	Gln	Phe	Leu	Arg	Ser	Thr	Ser	Ser	Met	Ser	Ser	Leu	His
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Val	Ser	Ser	Pro	His	Gln	Arg	Ala	Ser	Ala	Lys	Met	Lys	Pro	Ile	Glu
			325					330					335		
Glu	Gly	Ala	Glu	Asp	Asp	Asp	Asp	Val	Phe	Glu	Pro	Ala	Ser	Pro	Asn
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&lt;210&gt; 5769

&lt;211&gt; 427

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5769

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300

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427

&lt;210&gt; 5770

<211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 5770

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		20						25					30		
Ile	Lys	Ile	Phe	Trp	Gly	Pro	Glu	Leu	Lys	Lys	Glu	Arg	Ala	Leu	Arg
		35				40					45				
Lys	Asp	Glu	Ala	Ser	Lys	Ile	Pro	Ile	Trp	Lys	Glu	Gln	Tyr	Arg	Val
	50					55					60				
Val	Gln	Glu	Glu	Asn	Gln	Val	Ser	Ser	Thr	Cys	Val	Tyr	Leu	Tyr	Trp
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<210> 5771  
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 <212> DNA  
 <213> Homo sapiens

<400> 5771

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<211> 642

<212> PRT

<213> Homo sapiens

<400> 5772

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			20					25					30		
Val	Arg	Cys	Ala	Thr	Pro	Pro	Gln	Leu	Ala	Asn	Gly	Val	Thr	Glu	Gly
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	50					55					60				
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His	Ile	Gln	Tyr	Gln	Cys	Phe	Pro	Gly	Tyr	Lys	Leu	His	Gly	Asn	Ser
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Ser	Arg	Arg	Cys	Leu	Ser	Asn	Gly	Ser	Trp	Ser	Gly	Ser	Ser	Pro	Ser
	130					135					140				
Cys	Leu	Pro	Cys	Arg	Cys	Ser	Thr	Pro	Val	Ile	Glu	Tyr	Gly	Thr	Val
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				165					170					175	
Lys	Gly	Phe	Lys	Leu	Leu	Gly	Leu	Ser	Glu	Ile	Thr	Cys	Glu	Ala	Asp
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Gly	Gln	Trp	Ser	Ser	Gly	Phe	Pro	His	Cys	Glu	His	Thr	Ser	Cys	Gly
	195						200					205			
Ser	Leu	Pro	Met	Ile	Pro	Asn	Ala	Phe	Ile	Ser	Glu	Thr	Ser	Ser	Trp
	210					215					220				
Lys	Glu	Asn	Val	Ile	Thr	Tyr	Ser	Cys	Arg	Ser	Gly	Tyr	Val	Ile	Gln
225					230					235				240	
Gly	Ser	Ser	Asp	Leu	Ile	Cys	Thr	Glu	Lys	Gly	Val	Trp	Asn	Gln	Pro
				245					250					255	
Tyr	Pro	Val	Cys	Glu	Pro	Leu	Ser	Cys	Gly	Ser	Pro	Pro	Ser	Val	Ala
			260					265					270		
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	275						280					285			
Leu	Arg	Cys	Leu	Glu	Gly	Tyr	Thr	Met	Asp	Thr	Asp	Thr	Asp	Thr	Ile
	290					295					300				
Thr	Cys	Gln	Lys	Asp	Gly	Arg	Trp	Phe	Pro	Glu	Arg	Ile	Ser	Cys	Ser
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				325					330					335	
Gly	Asp	Asp	Phe	Ser	Val	Asn	Arg	Gln	Val	Ser	Val	Ser	Cys	Ala	Glu
			340					345					350		
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385	390	395
Thr Phe Glu Ser Thr Ile Ile Tyr Gln Cys Glu Pro Gly Tyr Glu Leu		
405	410	415
Glu Gly Asn Arg Glu Arg Val Cys Gln Glu Asn Arg Gln Trp Ser Gly		
420	425	430
Gly Val Ala Ile Cys Lys Glu Thr Arg Cys Glu Thr Pro Leu Glu Phe		
435	440	445
Leu Asn Gly Lys Ala Asp Ile Glu Asn Arg Thr Thr Gly Pro Asn Val		
450	455	460
Val Tyr Ser Cys Asn Arg Gly Tyr Ser Leu Glu Gly Pro Ser Glu Ala		
465	470	475
His Cys Thr Glu Asn Gly Thr Trp Ser His Pro Val Pro Leu Cys Lys		
485	490	495
Pro Asn Pro Cys Pro Val Pro Phe Val Ile Pro Glu Asn Ala Leu Leu		
500	505	510
Ser Glu Lys Glu Phe Tyr Val Asp Gln Asn Val Ser Ile Lys Cys Arg		
515	520	525
Glu Gly Phe Leu Leu Gln Gly His Gly Ile Ile Thr Cys Asn Pro Asp		
530	535	540
Glu Thr Trp Thr Gln Thr Ser Ala Lys Cys Glu Lys Ile Ser Cys Gly		
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Pro Pro Ala His Val Glu Asn Ala Ile Ala Arg Gly Val His Tyr Gln		
565	570	575
Tyr Gly Asp Met Ile Thr Tyr Ser Cys Tyr Ser Gly Tyr Met Leu Glu		
580	585	590
Gly Phe Leu Arg Ser Val Cys Leu Glu Asn Gly Thr Trp Thr Ser Pro		
595	600	605
Pro Ile Cys Arg Ala Val Cys Arg Phe Pro Cys Gln Asn Gly Gly His		
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Pro Leu		640

&lt;210&gt; 5773

&lt;211&gt; 579

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5773

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Asp Lys Glu Arg Val Arg Lys Arg Ser Lys Ser Arg Glu Ser Lys Arg  
50 55 60  
Asn Arg Arg Arg Glu Ser Arg Ser Arg Ser Arg Ser Thr Asn Thr Ala  
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<212> DNA  
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<211> 359

<212> PRT

<213> Homo sapiens

<400> 5776

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			85				90					95			
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145	150	155
Arg Ile His Thr Gly Glu Lys Pro Tyr Ala Cys His Glu Cys Gly Lys		
165	170	175
Cys Phe Ala Ala Ala Ser Arg Phe Ile Gln His Gln Arg Ile His Ser		
180	185	190
Gly Glu Lys Pro Tyr Ala Cys Pro Glu Cys Ser Lys Thr Phe Thr Arg		
195	200	205
Ser Ser Asn Leu Ile Lys His Gln Val Ile His Ser Gly Glu Arg Pro		
210	215	220
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225	230	235
Leu Glu His Ala Arg Val His Ser Gly Glu Lys Pro Tyr Glu Cys Ser		
245	250	255
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260	265	270
Arg Thr His Thr Gly Glu Lys Pro Tyr His Cys Leu Asp Cys Gly Lys		
275	280	285
Ser Phe Ser His Ser Ser His Leu Ile Lys His Gln Arg Thr His Arg		
290	295	300
Gly Val Arg Pro Tyr Ala Cys Pro Leu Cys Gly Lys Ser Phe Ser Arg		
305	310	315
Arg Ser Asn Leu His Arg His Glu Lys Ile His Thr Thr Gly Pro Lys		
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5778

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5778

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Gln	Ala	Lys	Met	Arg	Pro	Leu	Gln	Pro	Leu	Pro	Gln	Pro	Ser	Glu	Arg
			20					25				30			
Ala	Gly	Ala	Ala	Leu	Gly	Phe	Leu	Leu	Arg	Arg	Cys	Leu	Gln	Gly	Pro
			35				40					45			
Val	Gly	Asp	His	Gly	Gln	His	Lys	Ser	Met	Ala	Glu	Gly	Ile	Leu	Ala
	50					55					60				
Glu	Val	Leu	Arg	Arg	His	Leu	Gln	His	Glu	Glu	Ala	Pro	Gly	Leu	Arg
65					70					75				80	
Arg	Gly	Arg	Phe	Ala	Glu	Arg	Arg	Gly	Pro	Lys	Trp	Ile	Trp	Arg	Ser
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 <211> 845  
 <212> DNA  
 <213> Homo sapiens

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 845

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 <212> PRT  
 <213> Homo sapiens

<400> 5782  
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 35 40 45  
 Thr Ser Ser Thr Glu Ala Pro Ala Ala Leu Ser Gly Thr Ser Gly Pro  
 50 55 60  
 Gly Xaa Ser Ser Pro Pro Gly Gly Pro Gly Leu Gly Pro Leu Pro Ala  
 65 70 75 80  
 Pro Glu Ala Leu Gln Pro Gly Val Gln Arg Gly Gly Pro Ala Gly His

			85					90					95				
Gly	Gln	Ala	Pro	Ala	Pro	Pro	Ala	Pro	Gly	Gln	Ala	Gly	Ser	His	Arg		
			100					105					110				
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		115					120					125					
Ser	Leu	Ala	Val	Ala	Trp	Arg	His	Gly	Thr	Trp	Ile	Gly	Gln	Pro	Pro		
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Pro	Cys	Pro															
145																	

&lt;210&gt; 5783

&lt;211&gt; 1839

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5783

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&lt;210&gt; 5784

&lt;211&gt; 386

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5784

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			20				25					30			
Ile	Lys	Phe	Asp	Ala	Gly	Thr	Leu	Leu	Ser	Thr	His	Arg	Leu	Ile	
		35					40				45				
Trp	Arg	Asp	Gln	Lys	Asn	His	Glu	Cys	Cys	Met	Ala	Ile	Leu	Leu	Ser
		50				55				60					
Gln	Ile	Val	Phe	Ile	Glu	Glu	Gln	Ala	Ala	Gly	Ile	Gly	Lys	Ser	Ala
65					70				75					80	
Lys	Ile	Val	Val	His	Leu	His	Pro	Ala	Pro	Pro	Asn	Lys	Glu	Pro	Gly
				85				90					95		
Pro	Phe	Gln	Ser	Ser	Lys	Asn	Ser	Tyr	Ile	Lys	Leu	Ser	Phe	Lys	Glu
		100					105					110			
His	Gly	Gln	Ile	Glu	Phe	Tyr	Arg	Arg	Leu	Ser	Glu	Glu	Met	Thr	Gln
		115					120				125				
Arg	Arg	Trp	Glu	Asn	Met	Pro	Val	Ser	Gln	Ser	Leu	Gln	Thr	Asn	Arg
		130				135					140				
Gly	Pro	Gln	Pro	Gly	Arg	Ile	Arg	Ala	Val	Gly	Ile	Val	Gly	Ile	Glu
145					150					155				160	
Arg	Lys	Leu	Glu	Glu	Lys	Arg	Lys	Glu	Thr	Asp	Lys	Asn	Ile	Ser	Glu
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<210> 5786  
 <211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 5786  
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 35 40 45  
 Leu Ala Gln Pro Leu Gly Pro Trp Pro Leu Ser Ser Ala Gly Pro Arg  
 50 55 60  
 Leu Val Phe Asn Arg Val Asn Arg Arg Arg Asp Pro Ser Lys Ser Pro  
 65 70 75 80  
 Ser Leu Gln Gly Thr Gln Glu Thr Tyr Thr Leu Ala His Lys Glu Asn  
 85 90 95  
 Val Arg Phe Val Ser Glu Ala Trp Gln Gln Val Gln Gln Gln Leu Asp  
 100 105 110  
 Gly Gly Pro Ala Gly Glu Gly Gly Pro Arg Pro Val Gln Tyr Val Glu  
 115 120 125  
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<210> 5787  
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 <212> DNA  
 <213> Homo sapiens

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1683

&lt;210&gt; 5788

&lt;211&gt; 417

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5788

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Ser	Cys	Glu	Tyr	Glu	Thr	Arg	Leu	Pro	Gly	Asn	His	Ser	Thr	Ser	Gln
		35					40					45			
Glu	Ile	Phe	Arg	Gln	Arg	Phe	Arg	His	Leu	Arg	Tyr	Gln	Glu	Thr	Pro
	50					55					60				
Gly	Pro	Arg	Glu	Ala	Leu	Ser	Gln	Leu	Arg	Val	Leu	Cys	Cys	Glu	Trp
65					70				75						80
Leu	Arg	Pro	Glu	Lys	His	Thr	Lys	Glu	Gln	Ile	Leu	Glu	Phe	Leu	Val
				85					90					95	
Leu	Glu	Gln	Phe	Leu	Thr	Ile	Leu	Pro	Glu	Glu	Leu	Gln	Ser	Trp	Val
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Arg	Gly	His	His	Pro	Lys	Ser	Gly	Glu	Glu	Ala	Val	Thr	Val	Leu	Glu
		115					120					125			
Asp	Leu	Glu	Lys	Gly	Leu	Glu	Pro	Glu	Pro	Gln	Val	Pro	Gly	Pro	Ala
	130					135					140				
His	Gly	Pro	Ala	Gln	Glu	Glu	Pro	Trp	Glu	Lys	Lys	Glu	Ser	Leu	Gly
145					150					155					160
Ala	Ala	Gln	Glu	Ala	Leu	Ser	Ile	Gln	Leu	Gln	Pro	Lys	Glu	Thr	Gln
			165						170					175	
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Gln	Arg	Asn	Pro	Lys	Ala	Glu	Arg	Leu	Arg	Trp	Ser	Pro	Ala	Gln	Glu
				245					250					255	
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Lys	Lys	Asp	His	Glu	Cys	Ser	Glu	Cys	Gly	Lys	Thr	Phe	Ile	Tyr	Asn
		275					280					285			
Ser	His	Leu	Val	Val	His	Gln	Arg	Val	His	Ser	Gly	Glu	Lys	Pro	Tyr
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Gln	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Phe	Glu	Cys	Asn	Glu
				325					330					335	
Cys	Gly	Lys	Ala	Phe	Arg	Trp	Gly	Ala	His	Leu	Val	Gln	His	Gln	Arg
			340					345				350			
Ile	His	Ser	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Glu	Cys	Gly	Lys	Ala
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Phe	Ser	Gln	Ser	Ser	Tyr	Leu	Ser	Gln	His	Arg	Arg	Ile	His	Ser	Gly
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<212> DNA  
<213> Homo sapiens

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<212> PRT  
<213> Homo sapiens

&lt;400&gt; 5790

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35          40          45
Pro Gln Pro Gly Ala Gly His Asp Glu Gly Pro Gly Ser Gly Trp Ala
50          55          60
Ala Lys Gly Thr Val Arg Gly Trp Asn Arg Arg Ala Arg Glu Ser Pro
65          70          75          80
Gly His Val Ser Glu Pro Asp Arg Thr Gln Leu Ser Gln Asp Leu Gly
85          90          95
Gly Gly Thr Leu Ala Met Asp Thr Leu Pro Asp Asn Arg Thr Arg Val
100          105          110
Val Glu Asp Asn His Ser Tyr Tyr Val Ser Arg Leu Tyr Gly Pro Ser
115          120          125
Glu Pro His Ser Arg Glu Leu Trp Val Asp Val Ala Glu Ala Asn Arg
130          135          140
Ser Gln Val Lys Ile His Thr Ile Leu Ser Asn Thr His Arg Gln Ala
145          150          155          160
Ser Arg Val Val Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Pro Leu
165          170          175
Arg Gln Ile Thr Ile Ala Thr Gly Gly Phe Ile Phe Met Gly Asp Val
180          185          190
Ile His Arg Met Leu Thr Ala Thr Gln Tyr Val Ala Pro Leu Met Ala
195          200          205
Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr Val Val Tyr Phe Asp
210          215          220
Asn Gly Thr Val Phe Val Val Gln Trp Asp His Val Tyr Leu Gln Gly
225          230          235          240
Trp Glu Asp Lys Gly Ser Phe Thr Phe Gln Ala Ala Leu His His Asp
245          250          255
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&lt;210&gt; 5791

&lt;211&gt; 3285

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5791

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<212> PRT

<213> Homo sapiens

<400> 5792

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<212> PRT

<213> Homo sapiens

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&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5796

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&lt;213&gt; Homo sapiens

&lt;400&gt; 5799

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&lt;210&gt; 5800

&lt;211&gt; 535

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5800

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4965

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Leu Gly Val Tyr Trp	Gln His Lys Pro Lys Cys Phe Ser Asp Phe Ile			
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Glu Val Glu Arg Gly Ser Gly Thr Glu Glu Ala Asn Glu Asp Met Glu				
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Glu Gln Gln Gln Pro Met Tyr Gln Pro Thr Pro Thr Lys Asp Lys Asp				
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&lt;210&gt; 5802

&lt;211&gt; 350

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5802

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Phe	Glu	Lys	Val	Pro	Leu	Phe	Met	Ser	Arg	Ala	Pro	Ser	Glu	Ile	Asp
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Pro	Arg	Glu	Asn	Pro	Asp	Leu	Ala	Cys	Leu	Gln	Ser	Ile	Ile	Phe	Asp
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Glu	Glu	Arg	Ser	Pro	Glu	Glu	Gln	Ala	Lys	Thr	Tyr	Lys	Asp	Glu	Gly
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Asn	Asp	Tyr	Phe	Lys	Glu	Lys	Asp	Tyr	Lys	Lys	Ala	Val	Ile	Ser	Tyr
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Thr	Glu	Gly	Leu	Lys	Lys	Lys	Cys	Ala	Asp	Pro	Asp	Leu	Asn	Ala	Val
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Leu	Tyr	Thr	Asn	Arg	Ala	Ala	Ala	Gln	Tyr	Tyr	Leu	Gly	Asn	Phe	Arg
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Phe	Ala	Glu	Ala	Val	Asn	Trp	Cys	Asp	Glu	Gly	Leu	Gln	Ile	Asp	Ala
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Lys	Glu	Lys	Lys	Leu	Leu	Glu	Met	Arg	Ala	Lys	Ala	Asp	Lys	Leu	Lys
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Gly	Leu	Gly	Glu	Leu	Phe	Leu	Asp	Gly	Leu	Ser	Thr	Glu	Asn	Pro	His
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Gly	Ala	Arg	Leu	Ser	Leu	Asp	Gly	Gln	Gly	Arg	Leu	Ser	Trp	Pro	Val
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Leu	Phe	Leu	Tyr	Pro	Glu	Tyr	Ala	Gln	Ser	Asp	Phe	Ile	Ser	Ala	Phe
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His	Glu	Asp	Ser	Arg	Phe	Ile	Asp	His	Leu	Met	Val	Met	Phe	Gly	Glu
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Thr	Pro	Ser	Trp	Asp	Leu	Glu	Gln	Lys	Tyr	Cys	Leu	Ile	Ile	Trp	Arg
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Ser	Thr	Leu	Arg	Met	Arg	Thr	Gly	Gln	Asn	Tyr	Thr	Gly	Cys	Leu	Pro
			325						330					335	
Arg	Ala	Pro	Cys	Tyr	Arg	Phe	Tyr	Ser	Thr	Arg	Gly	Thr	Leu		
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&lt;210&gt; 5803

&lt;211&gt; 692

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5803

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<211> 126

<212> PRT

<213> Homo sapiens

<400> 5804

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			20					25					30		
Gln	Thr	Val	Lys	Glu	Phe	Ile	Val	Phe	Leu	Lys	Gln	Asp	Val	Pro	Leu
		35					40					45			
Arg	Thr	Asn	Leu	Pro	Pro	Pro	Phe	Arg	Asn	Tyr	Lys	Tyr	Asp	Ala	Leu
		50				55					60				
Lys	Ile	Ile	His	Gln	Ala	His	Lys	Ser	Lys	Thr	Asn	Glu	Leu	Val	Leu
65				70					75				80		
Ser	Leu	Glu	Asp	Asp	Glu	Arg	Leu	Leu	Leu	Lys	Glu	Asp	Ser	Thr	Leu
			85					90					95		
Lys	Ala	Ala	Gly	Ile	Ala	Ser	Glu	Thr	Glu	Ile	Ala	Phe	Phe	Cys	Glu
			100					105					110		
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<211> 1112

<212> DNA

<213> Homo sapiens

<400> 5805

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&lt;210&gt; 5806

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5806

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			20					25					30		
Leu	Ser	Pro	Arg	Lys	Asp	Gly	Leu	Ser	Tyr	Gln	Ile	Phe	Pro	Asp	Pro
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Ser	Asp	Phe	Asp	Arg	Cys	Cys	Lys	Leu	Lys	Asp	Arg	Leu	Pro	Ser	Ile
	50				55					60					
Val	Val	Glu	Pro	Thr	Glu	Gly	Glu	Val	Glu	Ser	Gly	Glu	Leu	Arg	Trp
65					70				75					80	
Pro	Pro	Glu	Glu	Phe	Leu	Val	Gln	Glu	Asp	Glu	Gln	Asp	Asn	Cys	Glu
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Glu	Thr	Ala	Lys	Glu	Asn	Lys	Glu	Gln							



100

105

&lt;210&gt; 5807

&lt;211&gt; 1429

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5807

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<210> 5808

<211> 261

<212> PRT

<213> Homo sapiens

<400> 5808

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Leu Leu Gly Gly Ile Pro Glu Ser Gly Gly Pro Asp Ala Arg Gln Gly  
35 40 45  
Trp Leu Ala Ala Leu Gln Asp Arg Ser Ile Leu Ala Pro Leu Ala Trp  
50 55 60  
Asp Leu Gly Leu Leu Leu Phe Val Gly Gln His Ser Leu Met Ala  
65 70 75 80  
Ala Glu Arg Val Lys Ala Trp Thr Ser Arg Tyr Phe Gly Val Leu Gln  
85 90 95  
Arg Ser Leu Tyr Val Ala Cys Thr Ala Leu Ala Leu Gln Leu Val Met  
100 105 110  
Arg Tyr Trp Glu Pro Ile Pro Lys Gly Pro Val Leu Trp Glu Ala Arg  
115 120 125  
Ala Glu Pro Trp Ala Thr Trp Val Pro Leu Leu Cys Phe Val Leu His  
130 135 140  
Val Ile Ser Trp Leu Leu Ile Phe Ser Ile Leu Leu Val Phe Asp Tyr  
145 150 155 160  
Ala Glu Leu Met Gly Leu Lys Gln Val Tyr Tyr His Val Leu Gly Leu  
165 170 175  
Gly Glu Pro Leu Ala Leu Lys Ser Pro Arg Ala Leu Arg Leu Phe Ser  
180 185 190  
His Leu Arg His Pro Val Cys Val Glu Leu Leu Thr Val Leu Trp Val  
195 200 205  
Val Pro Thr Leu Gly Thr Asp Arg Leu Leu Leu Ala Phe Leu Leu Thr  
210 215 220  
Leu Tyr Leu Gly Leu Ala His Gly Leu Asp Gln Gln Asp Leu Arg Tyr  
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Leu Arg Ala Gln Leu Gln Arg Lys Leu His Leu Leu Ser Arg Pro Gln  
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Asp Gly Glu Ala Glu  
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<210> 5809

<211> 2009

<212> DNA

<213> Homo sapiens

<400> 5809

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 2009

<210> 5810  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

<400> 5810  
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 Gly Gly Gln Trp Arg Asp Leu Gly Ser Leu Gln Pro Pro Pro Gly  
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 Phe Lys Gln Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp His Tyr Lys  
 35 40 45  
 His Pro Thr Pro  
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<210> 5811  
 <211> 1607  
 <212> DNA  
 <213> Homo sapiens

<400> 5811  
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 agagaccggg ggtgatggtg gtgctggctg gacgtgggtg gtttcacagg acctgctgtg  
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 tctgagagga gccatgcggt gattagaagc ttggaggctg cagatctgcc gacaccccag  
 240  
 gccatcgagc cccaggccat cgtgcagcag gtcccagccc ccagtcgaat gcagatgccg  
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&lt;210&gt; 5812

&lt;211&gt; 463

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5812

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Glu	Arg	Ser	His	Ala	Val	Ile	Arg	Ser	Leu	Glu	Ala	Ala	Asp	Leu	Pro
			20					25					30		
Thr	Pro	Gln	Ala	Ile	Glu	Pro	Gln	Ala	Ile	Val	Gln	Gln	Val	Pro	Ala
			35					40					45		
Pro	Ser	Arg	Met	Gln	Met	Pro	Gln	Gly	Asn	Pro	Leu	Leu	Leu	Ser	His
	50					55					60				
Thr	Leu	Gln	Glu	Leu	Leu	Ala	Arg	Asp	Thr	Val	Gln	Val	Glu	Leu	Ile
65					70					75					80
Pro	Glu	Lys	Lys	Gly	Leu	Phe	Leu	Lys	His	Val	Glu	Tyr	Glu	Val	Ser
				85					90					95	
Ser	Gln	Arg	Phe	Lys	Ser	Ser	Val	Tyr	Arg	Arg	Tyr	Asn	Asp	Phe	Val
				100					105					110	
Val	Phe	Gln	Glu	Met	Leu	Leu	His	Lys	Phe	Pro	Tyr	Arg	Met	Val	Pro

115 120 125  
 Ala Leu Pro Pro Lys Arg Met Leu Gly Ala Asp Arg Glu Phe Ile Glu  
 130 135 140  
 Ala Arg Arg Arg Ala Leu Lys Arg Phe Val Asn Leu Val Ala Arg His  
 145 150 155 160  
 Pro Leu Phe Ser Glu Asp Val Val Leu Lys Leu Phe Leu Ser Phe Ser  
 165 170 175  
 Gly Ser Asp Val Gln Asn Lys Leu Lys Glu Ser Ala Gln Cys Val Gly  
 180 185 190  
 Asp Glu Phe Leu Asn Cys Lys Leu Ala Thr Arg Ala Lys Asp Phe Leu  
 195 200 205  
 Pro Ala Asp Ile Gln Ala Gln Phe Ala Ile Ser Arg Glu Leu Ile Arg  
 210 215 220  
 Asn Ile Tyr Asn Ser Phe His Lys Leu Arg Asp Arg Ala Glu Arg Ile  
 225 230 235 240  
 Ala Ser Arg Ala Ile Asp Asn Ala Ala Asp Leu Leu Ile Phe Gly Lys  
 245 250 255  
 Glu Leu Ser Ala Ile Gly Ser Asp Thr Thr Pro Leu Pro Ser Trp Ala  
 260 265 270  
 Ala Leu Asn Ser Ser Thr Trp Gly Ser Leu Lys Gln Ala Leu Lys Gly  
 275 280 285  
 Leu Ser Val Glu Phe Ala Leu Leu Ala Asp Lys Ala Ala Gln Gln Gly  
 290 295 300  
 Lys Gln Glu Glu Asn Asp Val Val Glu Lys Leu Asn Leu Phe Leu Asp  
 305 310 315 320  
 Leu Leu Gln Ser Tyr Lys Asp Leu Cys Glu Arg His Glu Lys Gly Val  
 325 330 335  
 Leu His Lys His Gln Arg Ala Leu His Lys Tyr Ser Leu Met Lys Arg  
 340 345 350  
 Gln Met Met Ser Ala Thr Ala Gln Asn Arg Glu Pro Glu Ser Val Glu  
 355 360 365  
 Gln Leu Glu Ser Arg Ile Val Glu Gln Glu Asn Ala Ile Gln Thr Met  
 370 375 380  
 Glu Leu Arg Asn Tyr Phe Ser Leu Tyr Cys Leu His Gln Glu Thr Gln  
 385 390 395 400  
 Leu Ile His Val Tyr Leu Pro Leu Thr Ser His Ile Leu Arg Ala Phe  
 405 410 415  
 Val Asn Ser Gln Ile Gln Gly His Lys Glu Met Ser Lys Val Trp Asn  
 420 425 430  
 Asp Leu Arg Pro Lys Leu Ser Cys Leu Phe Ala Gly Pro His Ser Thr  
 435 440 445  
 Leu Thr Pro Pro Cys Ser Pro Pro Glu Asp Gly Leu Cys Pro His  
 450 455 460

&lt;210&gt; 5813

&lt;211&gt; 2991

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5813

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 120

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300  
ctgtttaacc ttgttcacca ggcttatgaa gtgcttagtg acccccaaac cagggccatc  
360  
tatgatatat atgggaagag aggactggaa atggaaggat gggagggtgt ggaaaggagg  
420  
agaacccttg ctgaaattcg agaggagttt gagcggctgc agagagagag agaagagagg  
480  
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720  
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780  
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1620  
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 2991

&lt;210&gt; 5814

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5814

Ala	Ser	Ser	Glu	Glu	Leu	Lys	Ala	Ala	Tyr	Arg	Arg	Leu	Cys	Met	Leu
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Tyr	His	Pro	Asp	Lys	His	Arg	Asp	Pro	Glu	Leu	Lys	Ser	Gln	Ala	Glu
			20					25				30			
Arg	Leu	Phe	Asn	Leu	Val	His	Gln	Ala	Tyr	Glu	Val	Leu	Ser	Asp	Pro



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      35              40              45
Gln Thr Arg Ala Ile Tyr Asp Ile Tyr Gly Lys Arg Gly Leu Glu Met
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Glu Gly Trp Glu Val Val Glu Arg Arg Arg Thr Pro Ala Glu Ile Arg
  65              70              75              80
Glu Glu Phe Glu Arg Leu Gln Arg Glu Arg Glu Glu Arg Arg Leu Gln
      85              90              95
Gln Arg Thr Asn Pro Lys Leu Cys Asp Asn Lys Leu Cys Ser Ala Val
      100              105              110
Phe Ile Pro Trp Asn Pro Thr Arg Pro Asp His Cys Pro Ser Ser Glu
      115              120              125
Pro Arg Gln Glu His Arg Gly Leu Pro Ala Val Ala Met Gly Tyr Pro
      130              135              140
Val Ser His Glu His
145

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&lt;210&gt; 5815

&lt;211&gt; 590

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5815

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590

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&lt;210&gt; 5816

&lt;211&gt; 196

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5816

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Phe Ile Gln Ala Ala Leu Gly Asp Gln Pro Arg Asp Ile Leu Cys Gly
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Ala Ala Asp Glu Val Leu Ala Val Leu Lys Asn Glu Lys Leu Arg Asp
      20              25              30
Lys Glu Arg Arg Lys Glu Ile Asp Leu Leu Leu Gly Gln Thr Asp Asp

```

```

      35              40              45
Thr Arg Tyr His Val Leu Val Asn Leu Gly Leu Pro Ser Leu Phe Ser
  50              55              60
Phe Gly Leu Val Asp Asp Ala His His Leu Ile Asn Ala Leu Arg Gln
  65              70              75              80
Gln Ser Ile Thr Leu His Leu Val Asp Val Met Pro Val Leu Ile Thr
      85              90              95
Leu Ser Ser Leu Gly Ser Ser Phe Leu Leu His Leu Arg Phe Gly Pro
      100              105              110
Leu Ser Leu Val Ser His Thr Gly Ala Leu Gln Leu Pro Asn Lys Gly
      115              120              125
Gln His Leu Ser Cys Gly Phe Ile Pro Ala Gly Pro Val Asn Glu Arg
      130              135              140
Thr Val Ser Leu Glu His Lys Ile Arg Val Arg Leu Val Leu Val Leu
  145              150              155              160
Gln Thr Thr Gly Gly Tyr Ile Arg His Gly Arg Gly Cys Ser Glu Ala
      165              170              175
Ser Asp His His Ala Ser Ile Pro Gln Ala Ala Asn Gly Arg Arg Ser
      180              185              190
Leu Leu Leu Ala
      195

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&lt;210&gt; 5817

&lt;211&gt; 648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5817

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  120
cctagtaggc agtgctcctg ggacaagtct gagtcacccc agagaagcag catgaacaat
  180
ggatccccc cagctctatc aggcagcaaa accaacagcc caaagaacag tgttcacaag
  240
ctagatgtgt ctagaagccc ccctctcatg gtcaaaaaga acccagcctt taataagggt
  300
agtgggatag ttaccaatgg gtccttcagc agcagtaatg cagaaggtct tgagaaaacc
  360
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  420
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  480
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tcacctatga taatgtccat cacagttctc catgatgaac ttgatgac
  648

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&lt;210&gt; 5818

&lt;211&gt; 191

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5818

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Met Gly Gln Leu Gln Asn Lys Glu Asn Asn Asn Thr Lys Asp Ser Pro
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Ser Arg Gln Cys Ser Trp Asp Lys Ser Glu Ser Pro Gln Arg Ser Ser
          20           25           30
Met Asn Asn Gly Ser Pro Thr Ala Leu Ser Gly Ser Lys Thr Asn Ser
          35           40           45
Pro Lys Asn Ser Val His Lys Leu Asp Val Ser Arg Ser Pro Pro Leu
          50           55           60
Met Val Lys Lys Asn Pro Ala Phe Asn Lys Gly Ser Gly Ile Val Thr
65           70           75           80
Asn Gly Ser Phe Ser Ser Ser Asn Ala Glu Gly Leu Glu Lys Thr Gln
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Thr Thr Pro Asn Gly Ser Leu Gln Ala Arg Arg Ser Ser Ser Leu Lys
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Val Ser Gly Thr Lys Met Gly Thr His Ser Val Gln Asn Gly Thr Val
          115          120          125
Arg Met Gly Ile Leu Asn Ser Asp Thr Leu Gly Asn Pro Thr Asn Val
          130          135          140
Arg Asn Met Ser Trp Leu Pro Asn Gly Tyr Val Thr Leu Arg Asp Asn
          145          150          155          160
Lys Gln Lys Glu Gln Ala Gly Glu Leu Gly Gln His Asn Arg Leu Ser
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&lt;210&gt; 5819

&lt;211&gt; 1652

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5819

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&lt;210&gt; 5820

&lt;211&gt; 274

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5820

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			20					25					30		
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&lt;211&gt; 712

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5822

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Pro	Leu	Ala	Gly	Glu	Lys	Phe	Val	Glu	Val	Tyr	Lys	Glu	Ala	His	Leu
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5823

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<400> 5826  
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 20          25          30
Pro Thr Ser Cys Phe His Leu Phe Trp Ala Arg His Arg Leu Ser Asn
 35          40          45
Trp Glu Arg Pro Leu Phe Ile Lys Leu Gly Phe Phe Leu Ile Ser Leu
 50          55          60
Pro Asn Val Val Ser Gln Tyr Ser Ser Tyr Ser Ser Leu Gln Gly Val
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<211> 1479

<212> PRT

<213> Homo sapiens

<400> 5830

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Thr Pro Ala Cys Asn Thr Ser Leu Pro Ala Gln Arg Trp Lys Trp Val
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Asp Arg Glu Ala Leu Asn Leu Arg Trp His Cys Arg Thr Leu Gly Asp
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Gly Thr Leu Glu Arg Gly Asp Gln Thr Arg Ser Gly Gln Trp Arg Ile
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Tyr Gly Ser Glu Glu Asp Leu Cys Ala Leu Pro Tyr His Glu Val Tyr
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Thr Ile Gln Gly Asn Ser His Gly Lys Pro Cys Thr Ile Pro Phe Lys
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Tyr Asp Asn Gln Trp Phe His Gly Cys Thr Ser Thr Gly Arg Glu Asp
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